TECHNICAL REPORT SECTION
NAVAL POSTBRADUATE SCHOOL
MONREREY, CALIFORNIA 93940

AD787826

MILITARY MANPOWER AND MODERN VALUES

David G. Bowers Jerald G. Bachman

October, 1974

Institute for Social Research University of Michigan Ann Arbor, Michigan

This research was funded by the Office of Naval Research, Organizational Effectiveness Research Programs, under Contract No. N00014-67-A-0181-0048. Reproduction in whole or in part is permitted for any purpose of the United States Government. This document has been approved for public release and sale; its distribution is unlimited.

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitio)		5. TYPE OF REPORT & PERIOD COVERED Technical Report
Military Manpower and Modern V	Military Manpower and Modern Values	
		6. PERFORMING ORG. REPORT NUMBER 6. CONTRACT OR GRANT NUMBER(*)
Bowers, David G.		
Bachman, Jerald G.		N00014-67-A-0181-0048
9. PERFORMING ORGANIZATION NAME AND ADDRESS Institute for Social Research		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
University of Michigan Ann Arbor, Michigan		NR 170-746
Organizational Effectiveness Research Programs Office of Naval Research (Code 452) Arlington, VA 22217		October, 1974
		13. NUMBER OF PAGES
14. MONITORING AGENCY NAME & ADDRESS(II ditte	erent from Controlling Office)	15. SECURITY CLASS. (of this report)
		unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of thie Report)		
Approved for public release; d	istribution unlimit	ted
17. DISTRIBUTION STATEMENT (of the abetract anter	red in Block 20, if different from	n Report)
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse elde il necessary	and identify by block number)	
20. ABSTRACT (Continue on reverse elde if necessary		
This report summarizes fine study of the implications of po-	ssible values chang	ges in society for Navy
manpower and management practice from Navymen in a representative	e sample of units a	and from a civilian
national cross-section suggest generation gap on work and lead	that, while there	is no perceptible
educated-related generation gap	on receptivity to	autocratic versus

JECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)			
20. Abstract			
democratic management styles. Functional characteristics of the Navy as an organization are summarized. Values and attitudes toward military service, by both Navymen and civilians, are similarly analyzed, and possible action or policy steps are suggested.			

Acknowledgements

This summary report draws heavily upon the work of a number of persons whose efforts have contributed to the various technical reports thus far issued by the project. Their contributions are gratefully acknowledged:

John Blair

John A. Drexler, Jr.

Jerome L. Franklin

Jerome Johnston

Larry K. Michaelsen

Patrick M. O'Malley

EXECUTIVE SUMMARY

The Navy, unlike the Army, has historically relied entirely upon volunteers. But during the past few decades the draft provided a powerful "incentive" for some to enlist in the Navy. Now, under all-volunteer conditions, the Navy and the other branches of the armed forces must compete in the civilian manpower market. The Navy must attract sufficient numbers of enlistees and reenlistees in order to function effectively. More important than mere quantity, the Navy must attract and retain the right quality of individuals—a broad enough range of abilities and perspectives to ensure that the Navy continues to adapt to new and changing conditions. Finally, the Navy must now, more than ever, manage its manpower effectively—not simply because that manpower is more expensive and harder to recruit, but also because the effective and constructive utilization of manpower is in itself a key ingredient for its recruiting and retention.

Approximately two and one-half years ago, we undertook to explore the potential impact upon these facets of Navy effectiveness of changes in values, views, and preferences that may be occurring in American society at large. Much had at that point been written, and observational evidence reinforced the view, that affluence, education, and world events had combined to alter rather significantly the desires and preferences of Americans--particularly the young--in two areas: national issues and the treatment which one receives in the work place. If true, such changes would have important implications for the postures and practices of the Navy as an organization.

Accordingly, survey data were collected from two samples of persons:

(1) a representative national cross-section of the civilian population, and (2) a sample of Navymen stratified so as to be representative of major Navy entities (ships and shore stations). Questionnaires, identical except for certain personal background measures, were administered to persons in both samples during late 1972 and early 1973. The resulting data concerning values, perceptions and preferences in national and personal work settings have formed the basis for 28 technical reports submitted from the inception of the project through December 31, 1973.

This present report is intended as an integrative summary of the principal findings through that date. It will be augmented by a second such report concerning the additional work done during the present, final year of the existing contract. In brief, the findings discussed in the body of this report are:

Work Values and Preferences

- (1) There is little evidence of an organizational "generation gap" concerning preferred characteristics of the job.

 Young persons appear to attach greatest importance to the rather traditional values of personal independence and material success, a preference which they share with all other civilian, and nearly all Navy, age groups.
- (2) There is similarly little evidence of a gap concerning preferred leadership style. Preferences in this area appear to track actual experience.

- (3) There <u>is</u> a difference among age groups concerning adherence to, or acceptance of, autocratic beliefs. This rises rather sharply with age, despite the fact that both experience with, and preference for, <u>non</u>-autocratic behaviors from others also rises with age. The gap in adherence to autocractic beliefs is largest for young versus older enlisted men. Despite their similarities in other areas, it is nearly as large for older <u>officers</u> versus older <u>enlisted</u> men, the former looking very much like younger officers (and relatively non-autocratic in their beliefs).
- (4) Educational level is related to at least <u>some</u> aspects of what persons want from a job. Greater education is associated with reduced concern for economic issues, with less concern for serving one's country, and with enhanced concern about having challenging work. Among Navymen, it is also associated with greater <u>concern for</u> personal independence.
- (5) Adherence to autocratic beliefs also declines rather sharply with education, in this instance paralleling preferred and actual leadership practices.
- (6) Region of the country in which one grew up appears to make little or no difference in work values and preferences. However, some difference occurs according to type of community in which one grew up (rural-urban). Those from rural areas are most inclined to accept autocratic beliefs, while those from suburban areas are least likely to do so.

(7) A rather clear pattern of differences between the sexes in organizational preferences emerges for the civilian sample. Women, in civilian life generally, attach somewhat greater importance than do men to jobs which are cleaner, more clearly directed, less bureaucratic, more "settled," and more secure.

On the other hand, men and women do not differ in the importance which they attach to pay, steadiness of work, and availability of free time. They do not differ in their posture concerning adherence to autocratic beliefs, nor in the importance which they attach to human factors in organizational life. Little difference occurs in the behavior which they desire from their peers, and no difference in the importance which they attach to serving their country.

(8) Racial differences in values and preferences concerning the work setting appear to be comparatively minor. For the civilian segment, only a few such differences appear, most of them explainable in terms of the effect of discriminatory treatment upon persons' aspirations, that is, the tracking of one's hopes to his experiences.

Among Navymen, differences occur more frequently, but follow no discernible pattern, with one exception: on the critical issues of interpersonal treatment and challenging work, the Navy would appear to have rather successfully removed the effects of discriminatory treatment of minorities at the behavioral level.

Organizational Practices

- (9) On the standard array of organizational practices measures included in the survey, the Navy as a whole falls approximately at the lower border of what is termed the "normal" range (40 to 60 percentile points on the national civilian norms). This conceals a rather crucial difference, however. The shore-based units are well within that normal range, whereas the fleet units are distinctly below it. The sole exceptions are the submarines, which resemble the shore units in quality of organizational functioning.
- (10) Most of the more serious fleet problems appear to lie in organizational climate conditions and leadership behaviors, rather than in the intrinsic properties of jobs performed.
- (11) Much of the problem pattern occurs as well in, and perhaps ties critically to, a perceived undue absence of personal independence, in the form of <u>bureaucracy</u> and an unnecessary intrusion into Navymen's personal lives.
- (12) Like the organizational climate and leadership problems, this personal independence shortage is age-related.

 Until a Navyman reaches 30 years of age, or is in a group whose average age approximates that figure, he does not experience conditions as favorable as those experienced by civilians of almost any age.

- (13) The personal independence shortage is also rank-related.

 For enlisted men, experienced conditions steadily

 decline in positiveness from E-1 to E-5, then rise to a

 peak at E-7.
- (14) It is also unit-level related; conditions improve steadily with the rank of one's supervisor.

Values and Attitudes About Military Service

- (15) Both Navymen and civilians rate military service high in opportunities for getting more education and advancing to a more responsible position; however, chances for having a personally fulfilling job or getting one's ideas heard are rated lower--especially by first-term Navy enlisted men. When asked whether they feel they would personally receive more just and fair treatment as a civilian or as a member of the military service, Naval officers and later-term enlisted men tend to rate their chances for fair treatment as being "about the same" in military or civilian life, but first-term enlisted men are more likely to rate their chances as better in civilian life.
- (16) When asked a series of questions about the relative amounts of influence by military and civilian leaders, all groups of respondents state that such areas as battlefield tactics are and should be the domain of greatest military influence, whereas the areas of greatest civilian influence are seen to be decisions

about foreign involvements and the use of nuclear weapons. When asked to distinguish between the way things are and the way things ought to be, Navy officers and later-term enlisted men tend to see military influence as actually being quite low, whereas their preference (especially in the case of the later-term enlisted men) is to have substantially higher levels of military compared with civilian influence.

- (17) There is generally strong support for the concept of the all-volunteer force. Civilian respondents support the all-volunteer approach rather than the draft by nearly a two-to-one margin, and also appear willing to support the higher pay levels necessary to accomplish it.
- (18) Our analyses suggest an overall pattern of pro-military
 (or anti-military) sentiment. Those highest in promilitary sentiment rate military leaders as quite competent,
 give the services high marks for job opportunity and fair
 treatment, state a preference for higher levels of military
 spending and influence, and see the role of the military
 in society as predominantly positive. Their foreign policy
 views are rather "hawkish"—they are relatively supportive
 of U.S. military intervention in other countries, they
 prefer a position of military supremacy (rather than
 parity with the U.S.S.R.), they are most likely to support
 past U.S. involvement in Vietnam, and they are strongly
 opposed to amnesty for those who refused to serve in
 Vietnam. Finally, they place a high value on obedience to

military authority--they tend to agree with the statement that "servicemen should obey orders without question," and some maintain this position even when faced with a My-Lai-type incident.

- (19) The above dimensions which contribute to the general pattern of pro-military sentiment are also linked to positive feelings about the possibility of a son's enlistment in the military. Among first-term enlisted men, these same dimensions also relate strongly to plans for their own re-enlistment in the Navy.
- (20) Later-term enlisted men in the Navy appear, on the average, more strongly "pro-military" than any other group, Navy or civilian. Navy officers are fairly pro-military. First-term Navy enlisted men, on the other hand, are in many respects quite critical of the military; the exception to this pattern is found among those first-termers who plan to re-enlist--their views about the military are much more positive, and in general are very similar to the views of later-term enlisted men.

These, then, are the principal findings in a number of areas. From these stem, directly and indirectly, a number of possible implications and action steps that we judge worthy of consideration:

(1) Given the present conditions, as summarized above, an all-volunteer force is likely to recruit and retain personnel from only part of the ideological range found in the civilian population. The very individuals who

are needed to broaden the ideological balance in the Navy (and presumably the other branches of service as well) are the least likely to enlist—or re-enlist. Rather than aim recruiting efforts at only the more zealous or pro-military individuals, we recommend recruitment efforts designed to obtain a broader and more fully representative cross—section of individuals among first—termers and also among career personnel in the Navy. As suggestions for accomplishing this broad objective, we offer one recommendation concerning recruiting incentives and a number of recommendations about the work situation in the Navy.

(2) Retain, and, if possible, enhance educational benefits available to servicemen; and publicize such benefits widely. Develop "pay your way through college plans" that stress the opportunity to qualify for veterans' benefits, amass substantial savings, and accumulate some college credits during a tour of Navy service following high school.

Concerning the Work Situation

(3) Recognize more systematically the critical interrelationship of men and technology in the Navy.

The Navy should undertake to study its ships and shore stations as socio-technical (not just technical) system, and should attempt modifications in line with the resulting findings, perhaps initially on an experimental basis.

(4) Work to reduce the amount and effects of bureaucracy in Navy life.

Decentralize: return to command the overall responsibility for direction that over the years has been absorbed into central control functions.

Flatten the organizational structure: remove a large proportion of the one-on-one reporting relationships so frequently found in the Navy.

Make more constructive use of "management by objectives.

(5) Reduce the effects of age (and values) discrepancy among Navymen.

Improve the task leadership and technical competences of junior officers.

Replace senior enlistees with junior officers in roles which involve supervising younger enlisted men.

Take age discrepancy into account in the assignment process.

Improve the general leadership competences of Petty Officers other than Chiefs.

(6) Increase opportunities for independence in Navymen's personal lives.

Review Navy policies and procedures which potentially provide grounds for unnecessary intrusion into the personal lives of Navymen and alter those which do so. Write and issue something akin to a "Navyman's Bill of Rights," which specifies the personal life areas

and circumstances in which subordinate commanders may and may not intervene.

Add to the assignment procedures improved mechanisms for taking into account the personal needs and interests of Navymen. While relevant to all, this would appear to be most critical for young officers, whose loss to the service is quite costly.

Chapter 1

Prologue

Both the nation's leaders and its young people pressed during recent years for an end to the method by which much of the nation's defense manpower has been obtained during the last thirty years, the military draft. For all intents and purposes, this has now become fact. In place of a military force staffed partly by conscripts and "draft-motivated" enlistees there has been substituted the system of all-volunteer attraction and recruitment upon which our society has relied during peacetime years throughout most of its history.

These are not the tranquil times of earlier years, however; conditions change, events occur more rapidly, and their repercussions travel further today. In this complex world, the nation must not only be certain that its defense force is adequate in both numbers and competence, but also be assured that this force is wise, responsible, effective, and consonant with those democratic values which are central to our society.

Under an all-volunteer system, the Navy (and other branches of the Armed Forces as well) must compete in the manpower market. Like other types of employment, military service must provide work roles which are satisfying activities in their own right, which are seen as making a positive social contribution, and which provide adequate financial rewards, fringe benefits, and the like.

To the casual observer, as to the social scientist, it appears that conditions which have obtained since the start of World War II may be shifting. Many of the tenets, assumptions, and customary relationships of the last three decades, some forming the basis for military manning and management practices, are undergoing great changes. Affluence has rendered in many ways meaningless a number of the accustomed motivational strategies which were in the past effective. Attitudes toward authority, toward the value of great openness, questioning, and candor all appear to be changing. Not only the military services, but most of the major institutions of our society would seem to be faced with the necessity of closely examining, and perhaps greatly altering, practices based upon old assumptions in these areas.

The research which this report summarizes began with the proposition that changing values, expectations, life styles, and preferences for the quality of organizational life are important and perhaps overriding considerations in relation to the fortunes of an all-volunteer force.

It was stated early on that this proposition stems from two sources:

- (1) accumulating data of a formal variety which suggest that in recent years non-economic matters have become increasingly central to an ever-larger number of persons;
- (2) a great number of instances, increasing in frequency, in which dramatic shifts are evidenced in the behavior of persons and organizations on dimensions related to value and quality-of-life issues.

The roots of these societal values, preferences, and expectations lie in many areas, most notably the educational and child-rearing practices which have come into being within the last couple of decades.

The changes which have come over American society in recent decades are familiar themes, perhaps no longer surprising. All of us are familiar with statements concerning the number of scientists presently living, expressed as a proportion of those who ever lived, and similar statistics calculated to press home the point that change has accelerated. If the statistics seem repetitious or the themes overworked, however, it is to a failure of words, not a commonplaceness of the phenomenon, which blame ought justly be laid, for the changes are truly large. In the small space of three generations -- from grandparents to grandchildren, both presently living -- we have moved from being a nation which was two-thirds rural and in which one person in 16 was a high school graduate, with only one in 25 going to college to a nation which is three-fourths urban (and within that, largely suburban: 3 persons in 7 live in areas that are urban but not central-city), in which seven persons in every eight are high school graduates, and in which half go on to college.

Number of years completed is not the only change which has come over education. Amount of time spent in school within any one year has changed as well. In 1900, the typical, enrolled, public school student experienced a school year 99 instruction days long; in 1970

the instructional year was approximately twice that length (179 days in 1968, for example). The annual per-pupil expenditure in 1900 was \$12 nationally; in 1970 it was \$917! Even allowing for depreciation of the dollar, the "real" amount spent per pupil today is many times greater than it was at the turn of the century.

Within the educational experience, changes of a qualitative nature have contributed to the overall impact. Educational experiences at the elementary and secondary levels have become increasingly participative or involvement-oriented. Non-graded classrooms, multi-age grouping, individualized instruction, programmed learning, and a wide variety of other innovative practices have become commonplace in today's schools. In higher education, parietal rules of the sort which most of us personally experienced and accepted, and which were based upon the in loco parentis doctrine, are almost universally a thing of the past. Together with changes at both the Federal and (in some instances) state levels which establish 18 years as the age of majority, these shifts lead young persons of high school age to expect and to prepare for self-governance -- that is, a determining say over most matters affecting their lives -- at an earlier age.

The importance of this for attitudinal change ought not be lost.

Today's typical 18-year-old will have spent more than 2100 days in direct exposure to practices which encourage involvement and a questioning and challenging posture on his part. His role models during this period will have been highly educated, well trained teachers. He will find and view himself as an incoming adult member of a society that has become highly educated, sophisticated, urban, and affluent.

Although one may reasonably question the extent to which an affective or emotional change in attitudes has occurred over the years, there appears ample ground for assuming that the informational and behavioral components of attitudes have changed markedly. Today's likes, dislikes and preferences may be little different from those of two generations ago, but they are supported by a much sturdier informational sub-structure, and the behavioral repertoire in which they are seen as potentially finding expression contains a much wider array of alternatives, few of them in the category, "compliance."

It may well be, in other words, that values themselves have changed less than have certain other things associated with those values, like willingness to tolerate practices at odds with them, perceived available alternatives, ways of behaving in response to disliked practices, and the like.

Today's 18-year-old will in all likelihood be aware of the large number of alternatives available to him in conjunction with almost every choice he must make (a considerably larger number than were available to his grandfather years ago), and he will be well equipped to engage in the search process to locate alternatives in any unfamiliar situation. In short, whether his values are different or not, the options open to him are far greater in number, and he is better equipped to attain them, than were his grandparents. In the face of this, it seems unreasonable to assume that a relatively short period of boot and technical training can have any appreciable impact upon basic attitudes and preferences.

The world of work toward which he heads is similarly different from that which existed at the turn of the century. In 1900, 29 per cent

of the nation's prime-mover horsepower was provided by draft animals; in 1970 a comparable figure was .00007 per cent! Although this statistic seems simple, perhaps even humorous, a bit of reflection suggests that it indicates the amount of technological advance which has occurred in recent decades. Similarly, whereas ten per cent of the work force in that earlier day were engaged in professional, technical managerial, and official occupations (accountants, architects, chemists, businessmen, clergy, academicians, dentists, physicians, lawyers, judges, elected officials, public administrators, pharmacists, scientists, engineers, etc.), 25 percent of the work force are engaged in such occupations today.

Much, therefore, hinges upon the acceptability and "up-to-date" character of Navy practices, since it seems likely that little by way of socialization (attitude change of Navymen in directions more compatible with customary service practices) can be expected. Unfortunately, the degree of such correspondence seems lower than what might be desired. Whereas alternatives have undergone vast change and expansion since the early years of this century, managerial practices have changed relatively little. Managerially, a greater resemblance exists between the supervisory practices of today and those of a half-century ago than exists between alternatives available to subordinates now and at that earlier time.

Stated otherwise, to the extent that the nation possesses a "cream" of tomorrow's "crop," it is likely to be found among those whose ability and training ultimately aim them toward that 25 per cent work force slice which makes up the country's technical, professional, and managerial personnel. Although the wisdom or desirability may be questioned, it is likely that these opinion leaders will be drawn in

disproportionate numbers (if not largely) from among those who have been advantaged during their developing years by the best of what society has to offer. Exposed while they were growing up to a wide array of stimuli, good schools, and the like, this best-nurtured, best prepared slice of American society clearly will assume responsibility for its policies and operations in the years ahead. Yet, it is this stratum -- the young, better-educated segment of the population -- which is most at odds with prevailing Navy practices. A strange counterpoint is the fact that the Navy would appear to have in recent years drawn a large proportion of its recruits (under pressure of the draft) from precisely this segment.

Among civilians, this young, better-educated segment of the population is more rejecting of autocratic practices, less impressed with opportunity to serve one's country or make the world a better place as drawing cards in job selection, more demanding of challenging jobs, and more insistent upon adequate human-resource leadership practices.

In the Navy as among civilians, those persons who grew up in suburban areas are least authoritarian and, at the same time, least interested in having a job in which they may serve their country. The difference present in the civilian sample -- that those who grew up in the suburbs prefer more challenging jobs -- does not hold true among Navymen:

all community-of-origin categories among Navymen closely resemble the suburban-civilian.

Both preferences and practices show substantial age-related effects among Navymen, a phenomenon scarcely observable among civilians. Rather than alternative explanations (e.g., social desirability response bias, socialization, etc.) "selection-out" appears as a major factor, with most of the difficulty occurring among young Navymen. Although rank has some effect independent of age, both officers and enlisted men show rather similar effects, with negative views tied principally to an unfavorable organizational climate. This climate is viewed, by the young especially, as overly bureaucratic, arbitrary, and excessively intrusive into one's personal life. Human resources, their well-being and motivation, are viewed to be treated as subordinate in importance to impersonal rules and hardware.

Preferences for, and experience of, more adequate human resource organizational practices rise with age and rank in the Navy, not because of socialization and change, but primarily because those who experience these conditions remain ("select-in"), whereas those who do not experience them leave ("select-out"). While the comparison thus favors the Navy in the older age brackets, it should be noted that this counts for little if most leave the Navy because of the unfavorable comparison in the younger age brackets.

What of the future? What may be said of the child who was three to five years of age in 1971 -- the potential recruit during the 1980-1985 period? The chances are three out of four that he will have come from an urban-suburban background. The chances are one out of three or one out of four that his parents will have professional or technical occupations (and presumably somewhat higher than that that he will

himself aspire to such an occupation). The chances, furthermore, are three out of four that the head of his family will have at least a high school diploma, and about even that he will himself intend to go on to college. Eleven times more money will have been spent educating him; his teachers will likely have had work beyond a bachelor's degree, and will have employed a variety of new, different, and more participative teaching methods during the 12-year period of his exposure to them. He will have spent one-sixth more time each year in school than his parents, twice as much each year as his early 20thcentury grandparents. He will have been exposed to hours of instant communication from television, traveled more, seen more, and tried more activities -- athletic, social, and intellectual -- than his parents did at a comparable age. The chances are quite high that he will never have known any economic situation except comparative affluence, and almost certain that he will not have known real want. He will be, at least at the Federal level, no more than a few months away from a majority -- able to vote, enter into contracts, leave home, drink, and organize his life as he pleases.

Exceptions to any and all of these characteristics will, of course, occur, but this probably represents the "average" or typical 18-year-old of 1982. As such, he appears to be almost a prototype of today's most dissatisfied Navyman. Unless something changes practices or situations, he will in all likelihood never enter the Navy -- nor any other branch of the armed forces. Should he enter, he will in all likelihood leave. In either event, he will carry a posture of indifference or resentment with him to his civilian life and career. And from the most prototypical of all will come the 25 percent who will in the years ahead comprise the judges, physicians, engineers, scientists, legislators, administrators

and businessmen whose influence outweighs their numbers and who formulate the nation's policies and administer its affairs in their most critical apsects.

The research summarized in the pages which follow, therefore, provides a reasonably satisfactory answer to the general issue raised at the outset. It is not that young persons today possess values and preferences that are strikingly different from those of generations immediately preceding. On the contrary, they generally value and hold important the same things cherished by their parents and grandparents. There are, of course, some differences: young persons today are more averse to autocratic direction than their elders, for example, and somewhat less motivated by patriotic concerns. For the most part, however, young persons today attach greatest importance to those same conditions that their predecessors have valued: independence, economic success, and friendly relationships with others. The differences lie less in values than in the number and richness of available alternatives, in the amount of training received in locating and acting upon those alternatives, and in their greater reluctance to react compliantly.

Chapter 2

Values and Preferences in the Work Setting

One purpose of the overall study, of which the present chapter treats but a part, was: to collect data on value and expectation issues, and on the organizational practices to which they are presumably related, from both a civilian national cross-section and from a representative sample of Navymen from both the officer and enlisted ranks. From these data one might then determine (a) whether differences do, in fact, exist across demographic groups, as well as their direction, magnitude, and scope; (b) their likely impact upon that constellation of influences affecting enlistment and the extent to which material incentives affect that impact; and (c) the organizational management implications for the Navy of such differences as are seen to exist. In this present chapter, we examine the first of these questions, the likely existence of values differences.

The logical place to begin is a search for value differences of the kind described, emerging in the American population generally and potentially affecting the necessary manpower practices of the Navy.

The responses of all persons in both the civilian and Navy samples to value and preference measures have therefore been stratified by six demographic characteristics which should provide keys to such emerging differences as may exist:

Sex - Although the Navy has in the past been largely a man's world, women have recently come to greater prominence within it and could, with ratification of the equal rights amendment, occupy much larger roles than has previously been true.

- Age Much has been made in recent years of the extent to which values and preferences have changed for today's youth from what existed for earlier generations. Although the vociferious disagreement of at least some youth with prevalent political norms and values has been highly visible, the question remains open as to the degree to which this divergence extends to organizational preferences and values.
- Education Education is a profound socializer of the young.

 Greater amounts and higher quality of it provide exposure to ideas and methods wider in array, if not higher in quality, than is otherwise true. With education presumably come greater expectations about role, status, reward, and treatment.
- Community of Origin The decades since the turn of the century have witnessed the mass migration of our population, first from the farm to the city, and later from the city to its suburbs. As the population shifts, so does the manpower pool from which the Navy must draw its recruits. Yet another question concerns the extent to which those who have spent their early years in different types of communities (rural, small town, suburban, urban) differ in what they value and prefer organizationally.
- Race Blacks and other racial minorities have increasingly pressed for their rightful place in our society. As the range and variety of positions and roles which they occupy increase, some question may be raised about the extent to which their organizational values and preferences differ from those of the more customary Whites.

Region of Origin - Somewhat different life styles and degrees of affluence exist in various regions of the country. Although of somewhat less importance, perhaps, than the other demographic characteristics, the region in which one grew up contains at least some potential importance in auguring the Navy's future.

Age-Related Preferences

Three subsets of work-life related values and preferences concern us in the present study: (a) preferred characteristics of the <u>job</u> (as, for example, whether the work is challenging, whether it is clean, etc.); (b) preferences regarding the behavior of one's supervisor and peers (his leadership style and their styles in dealing with one another); and (c) adherence to a set of beliefs which are more or less democratic (as opposed to autocratic).

Our findings would suggest that constancy, rather than difference, is the rule with regard to the first of these, preferred <u>job</u> characteristics. When the 14 job preference measures were rank-ordered for Navymen and compared to a similar rank-ordering for employed civilian men, the two sets of rankings correlated quite highly (.90). Even among age groupings of civilians, the relative rankings were very much the same (average correlation = .90).

As the data in Table 1 indicate, both Navymen and civilians attach the greatest importance to personal independence (controlling one's personal life and avoiding entangling bureaucracy) and to economic success (good pay and fringe benefits). The job characteristics which least concern them are cleanliness, prestige, free time, absence of a "boss," and, perhaps surprisingly, an opportunity to serve one's country.

Table 1 Most and Least Important Features of a Preferred Job

Overall Rank	Civilians	Navymen
Most		
Imp. 1	Opportunity to Control Personal Life	Opportunity to Control Personal Life
2	Good Pay	Good Pay
3	Friendly People	Avoiding Bureaucracy
4	Good Fringe Benefits	Good Fringe Benefits
5	Avoiding Bureaucracy Mean = 3.58*	Challenging Work Mean = 3.57
10	Opportunity to Serve My Country	Opportunity to Serve My Country
11	No One to Boss Me	Lots of Free Time
12	Clean Job	No One to Boss Me
13	Lots of Free Time	Prestigious Job
Leastl4 Imp.	Prestigious Job Mean = 2.52	Clean Job Mean = 2.58

*Importance Scale: 1 = Very Unimportant 2 = Fairly Unimportant 3 = Fairly Important 4 = Very Important

Depending upon one's position and perspective, these findings may be viewed with pleasure or dismay. They seem to indicate, however, that, despite the rhetoric of recent years, the traditional American values of independence and material success are alive and well and likely to remain so for the immediate future.

Our findings do, however, indicate one set of differences that is particularly striking. Navymen 43 years of age and older, whether enlisted men or officers, present rank-ordered profiles on these preferred job characteristics which are unlike those of (a) young enlisted men, (b) young officers (who closely resemble young enlisted men), or civilians their own age. These dissimilarities occur largely because of the importance attached to opportunity to control one's personal life (which older Navymen do not value as highly as do others) and service to one's country and challenging work (which older Navymen value more highly than do others).

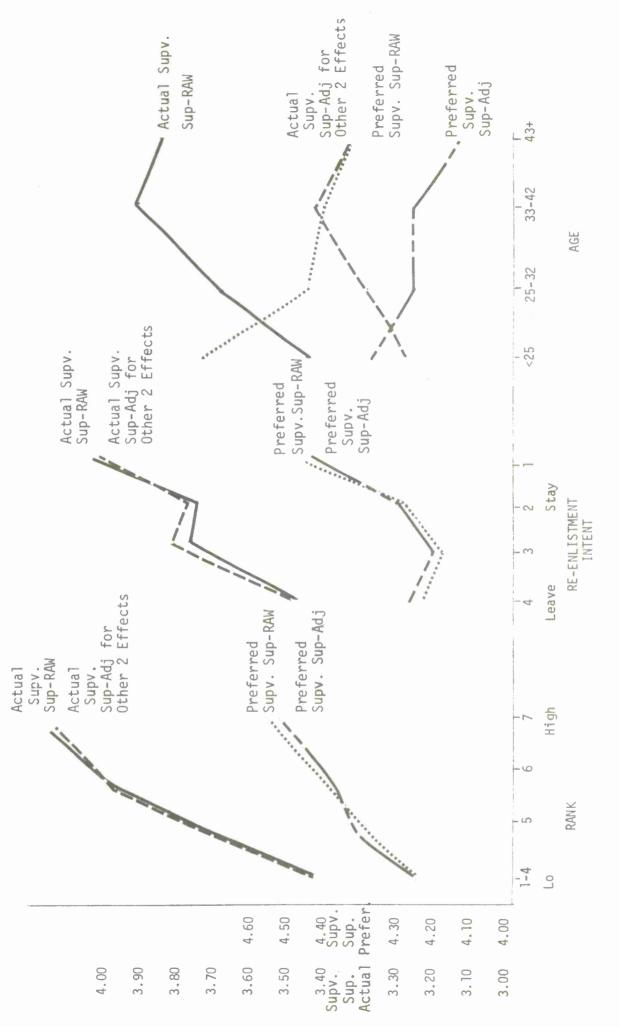
In the area of leadership preferences a rise-with-age appeared in the Navy data which does not appear, or appears only slightly, among civilians. These rises in leadership preferences with age appear to reflect the masking effects of rank and self-selection. Figure 1, which shows one of the measures (Supervisory Support) in relation to background variables (Rank, Re-enlistment Intention, and Age), is illustrative of a general pattern of findings:

- (1) Controlling for other variables has little effect on differences by Rank.
- (2) Controlling for other variables has little effect on self-selection (measured in this instance by Reenlistment Intention).
- (3) Controlling for other variables removes the effect of Age.
- (4) Effects are stronger for Actual than for Preferred leadership.

27

Preferred and Actual Supervisory Support, by Rank, Reenlistment Intent, and Age

Figure]



Although any discussion of cause-and-effect relationships is somewhat speculative for findings derived, as are these, from data collected at a single point in time, the most parsimonious explanation for these results would begin with the behavior actually experienced and move from that to preferences. In descriptive terms, Navymen in any age category report to supervisors whose behavior encompasses a fairly broad range, from quite good to very poor. The average behavior experienced rises in positiveness with age, partly because of rank (higher rank persons are supervised by persons of even higher rank who are, on the average, themselves better supervisors) and partly because of self-selection (specialties, career choices, and assignment practices result in some situational constancy across the period of service, and those who experience comparatively poor situations leave the service). That such effects are more apparent for actual than for preferred leadership characteristics adds weight to the argument that persons quite naturally are influenced in the setting of their aspirations by their actual experiences.

The third major area--autocratic versus democratic beliefs--will be treated only briefly at this point. In general, there would appear to be a trend toward more autocratic beliefs with age; however, this seems to be intertwined with the effects of educational level. For this reason, further treatment of this topic will be deferred to a subsequent section of the chapter.

Preferences Related to Educational Level

The findings in relation to education display both consistencies (among job characteristic preferences) and differences (for leadership preferences) when Navymen and employed civilian men are compared.

For both Navymen and civilians, greater education is associated with reduced concern about economic issues, less importance attached to service to one's country and enhanced concern about having challenging work. (See Fig. 2) Among Navymen, greater education is also associated with more importance being attached to personal independence. Stated thus generally, a number of interesting, though minor, differences are perhaps concealed:

- (1) In the economic area concern about fringe benefits declines with education for enlisted men, for officers, and for civilians. However, whereas the importance of <u>pay</u> declines with education for enlisted Navymen, the importance of <u>steady work</u> (without layoffs) declines for employed civilians.

 Neither measure declines for officers.
- (2) Much of the steeper rise with education of preference for challenging work among civilians is attributable to the lower end of the education scale (those with a high school education or less), a feature present only slightly in the enlisted Navymen curve, and not present at all for officers.

Turning to leadership style preferences, nearly all of the statistically significant difference among educational categories of Navymen, apparent when the combined sample was considered, disappears when enlisted men and officers are considered separately. It thus appears to reflect the combined effects of (a) difference between these two categories of personnel and (b) the different distributions of these two groups across educational categories. (See Figure 3)

Among civilians, however, a definite rise in preferred leadership with education occurs in a form considerably steeper than that for enlisted Navymen. For civilians, as for Navymen, the data rather clearly suggest that leadership preferences are set in some relationship to actual experiences. Although levels of actual and preferred leadership differ, the two curves are in each case similar in shape.

Figure 2

Importance of Challenging Work by Educational Level, for Enlisted Navymen, Employed Civilian Men, and Officers

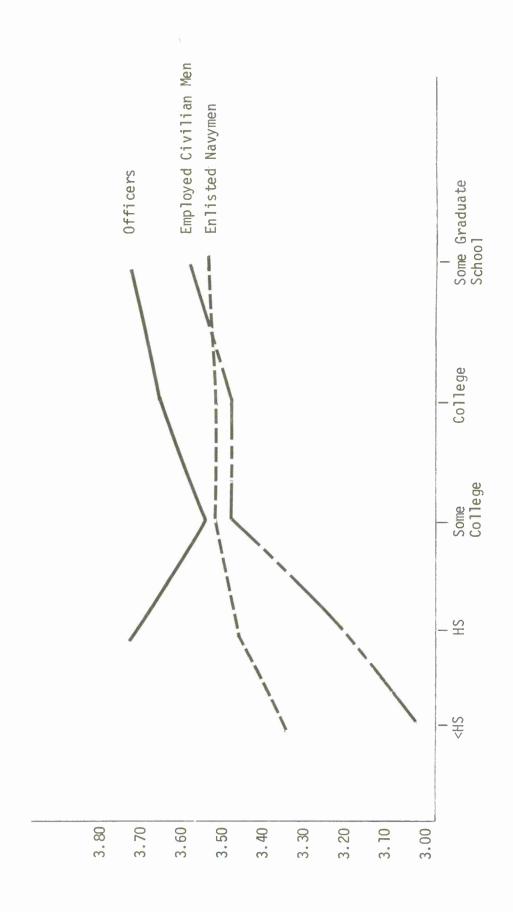
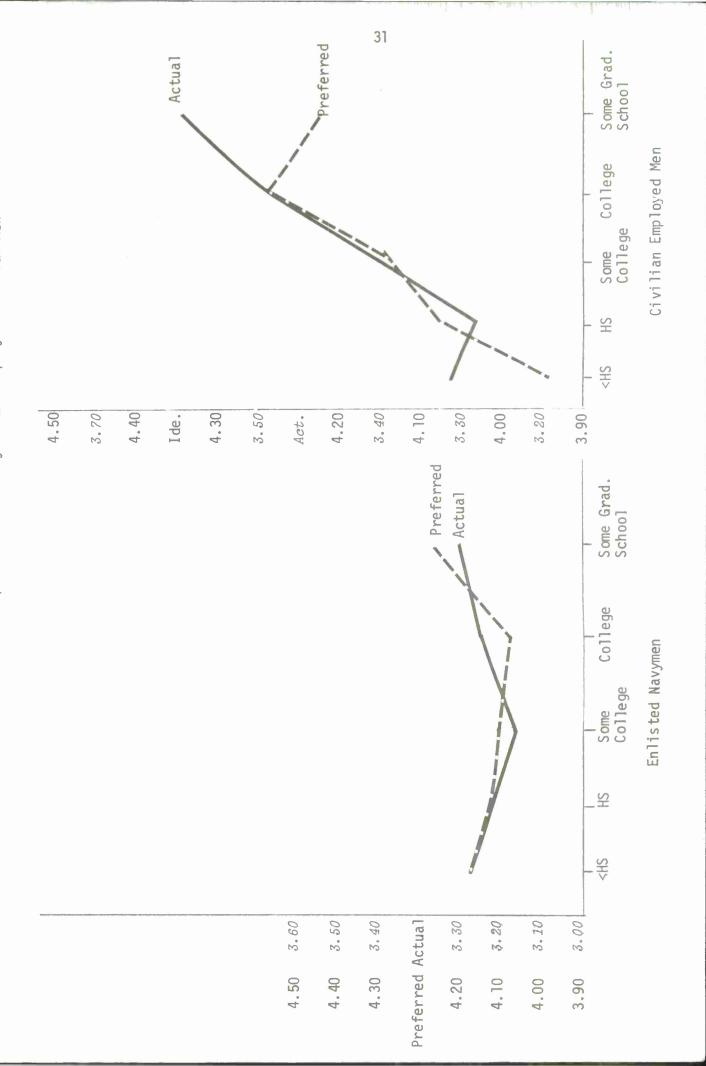


Figure 3

Mean Preferred and Actual Leadership of Enlisted Navymen and Employed Civilian Men



Age, Education and Autocratic versus Democratic Beliefs

An objective discussion of the issue indicated in this side-heading is difficult, largely because carefully chosen words or terms seem rapidly to disappear into a sea of unfortunate connotations. Thus, in organizational life, "autocratic" rapidly becomes "authoritarian" and brings to mind sadistic regimes from the history books. In an administrative context, "democratic" similarly transitions to "one man, one vote," and from there to notions of disorder and absence of direction.

Despite this semantic difficulty, there is a dimension of behavior or practice, coordinate with a set of beliefs similarly arranged. Toward one direction these behaviors and beliefs become increasingly reliant upon formal authority, more insistent upon artificial distinctions of status and position, more distrustful of the motives and capabilities of others. Toward the opposite direction behaviors and their allied beliefs become less status conscious, more trustful, and more concerned about persuasive competence, from whatever source.

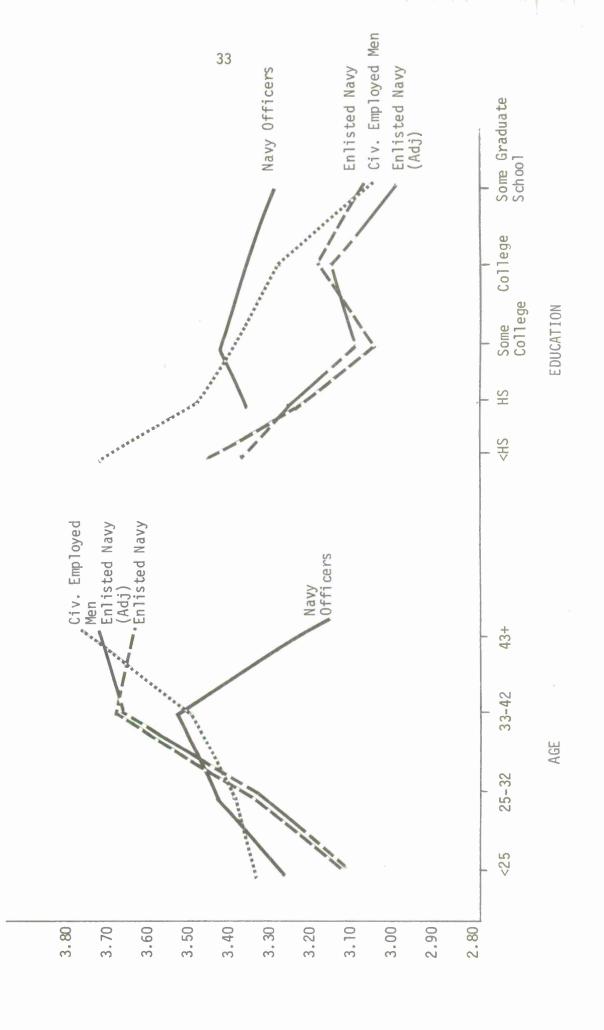
Although many terms might be applied to these directionally opposite styles, perhaps "domineering" and "cooperative" are most descriptive.

In the present study, the general finding is that belief in autocratic (domineering) supervisory practices (a) rises with age, and (b) declines with education. Figure 4 illustrates this quite clearly, along with certain qualifications:

(1) The curve by age for Navy officers looks remarkably similar to a comparable curve for civilians, rising until age 42; for the highest age category, however, the two curves reflect distinctly different values. Older Navy officers are among the Least autocratic of groups.

Figure 4

Adherence to Autocratic Management Beliefs



- (2) In this fact, older Navy officers seem to resemble <u>young</u> Navy officers, who are distinctly less autocratic than their civilian counterparts.
- (3) Controlling the enlisted age curve for the effects of rank, self-selection, and education has little effect. Perhaps the greatest gap among plotted points is that between the youngest enlisted men (mostly first-termers) and the older enlisted men who for the most part supervise them.
- (4) Controlling the enlisted education curve for the effects of age, rank, and self-selection has similarly little effect. In general, the decline with increasing education remains.

Preferences Related to Region and Community of Origin

In general, region of the country and type of community in which one grew up appear to bear little relationship to one's preferences concerning the work setting. No differences, for civilians or Navymen, occur among leadership style preferences. Among preferred job characteristics, perhaps the most important difference is that displayed graphically in Figure 5, which shows the importance attached to an opportunity to serve one's country. In combined form and ignoring the small category of Navymen who grew up in no identifiable region of the country, one might expect a combined scale to range from suburban New England (lowest) to the rural South (highest). For all groups, however, mean responses center about the category "Fairly Important;" no group sees this as clearly lacking in importance.

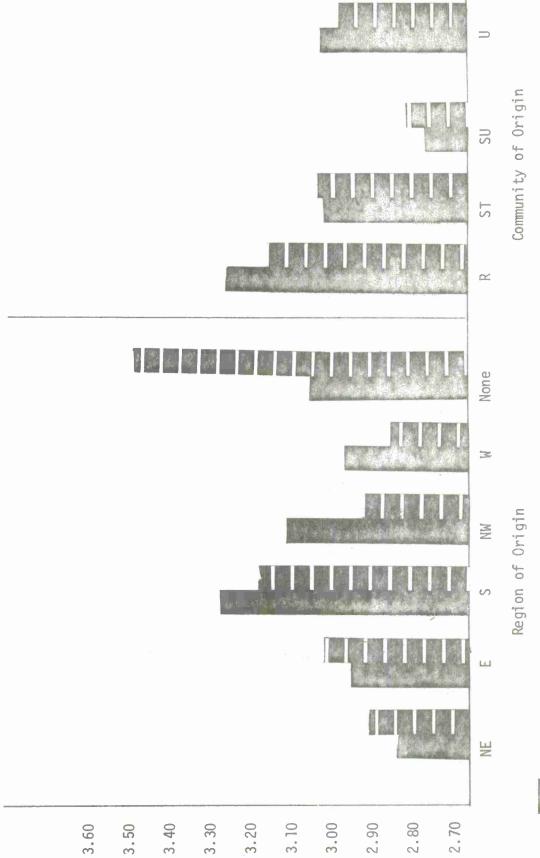
Preferences Related to Sex

Among civilians, men and women do not differ in the importance which they attach to pay, steadiness of work, and availability of free time.

They do not differ in autocratic versus democratic beliefs, nor in the importance which they attach to human factors in organizational life.

Figure 5

Importance Attached to an Opportunity to Serve One's Country, by Region and Community of Origin



Civilians



Navymen

Little difference occurs in the behavior which they desire from their peers, and no difference in the importance which they attach to serving their country. On two issues—the importance attached to challenging work and to having a prestigious job—an initial difference is removed when the comparison is restricted to employed women and men.

A number of differences remain, however. Women have a somewhat greater preference for a clean job, for working with friendly people, for a job that does not involve extensive transfers from one location to another, and for a situation in which the supervisor provides somewhat more task guidance.

None of these differences attain statistical significance between Navymen and women, nor in most instances are they even suggested by the data.

Preferences Related to Race

For civilians, similarity among racial groups in preferences, rather than difference, is more often found.

No real difference is apparent, for example, in importance attached to serving one's country, to making the world a better place, nor to pay, fringe benefits, and steady employment. Opportunity to control one's personal life, to stay in one place or move about, as well as the desire for supportive behavior from supervisor and co-workers, are preferred to essentially the same degree by both Blacks and Whites.

At least five of the value differences which do attain statistical significance among racial categories seem capable of being explained in terms of adaptation to conditions actually experienced on these same dimensions.

Figures 6 and 7, which present data for Navymen and for employed civilians, show by the similarity in shape of the actual and preferred curves the closeness with which preference replicates (at a higher level) experience.

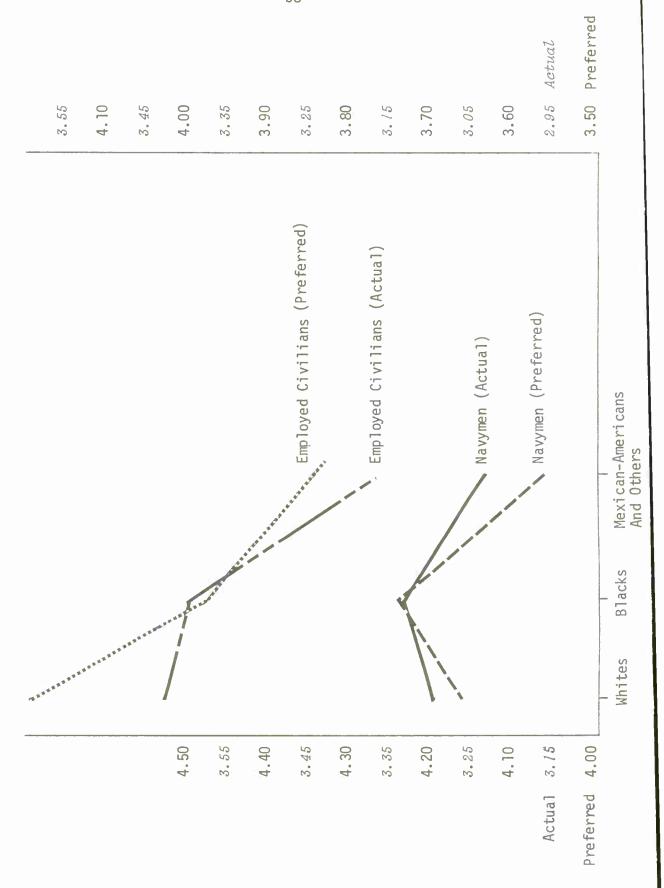
Figure 8 presents similar data for two other issues for which racial differences occur in both the Navy and civilian samples. In these instances, the importance curves do not appear to replicate actual experience. Perhaps nothing more need be made of them than the rather obvious point that, regardless of current experience, non-whites are much more concerned than whites that they not end up with dirty, low-status jobs.

Racial differences which appear, even at the outset, in the civilian sample in relation to leadership preferences largely disappear in the Navy sample. This occurs because Black Navymen express preferences quite close to those expressed by Whites, whether civilian or Navy. Racial differences remain on certain job preference measures: Whites attach more importance than do Blacks to having challenging jobs, whereas Blacks are more concerned than Whites about having "clean," prestigious jobs.

Conclusions: What the Data Tell Us About Values and Preferences

The chapter began with the proposition that differential, or changing, experiences in American life may have created conditions in which values and preferences regarding the work setting have been substantially altered. An integration of what has been covered, posed in question and answer form, would contain the following:

Figure 6 Mean Actual and Preferred Leadership by Race



Actual and Preferred Job Challenge by Race

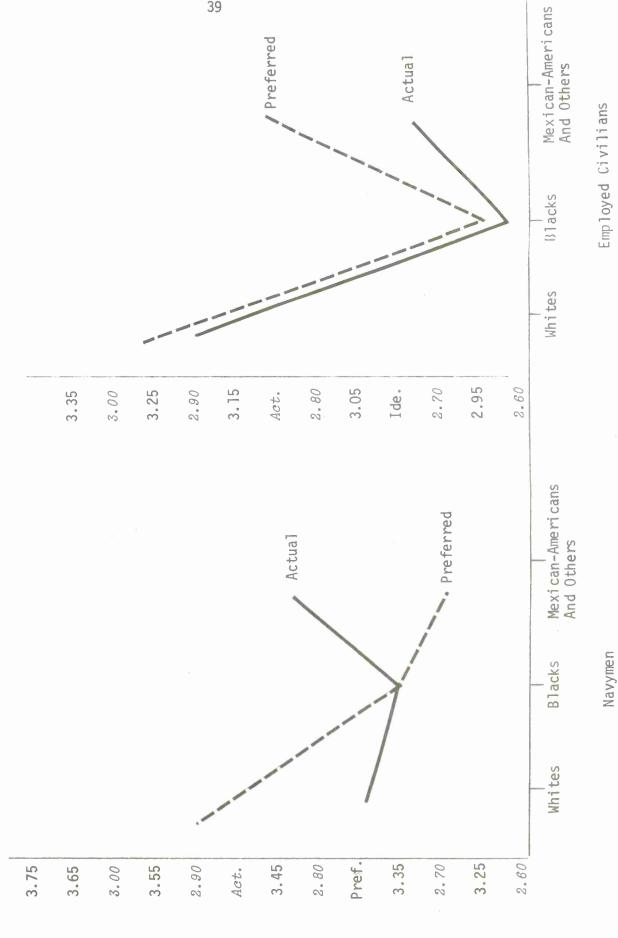
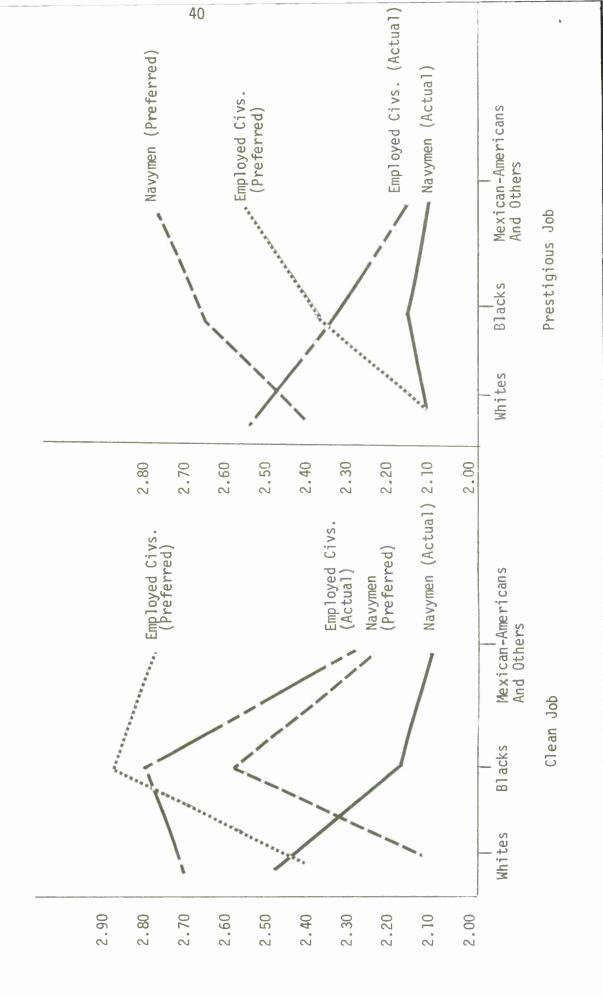


Figure 8

Experiences and Preferences Concerning Two Job Characteristics, by Race



(1) Is there an organizational "generation gap;" that is, do young persons today value and prefer something different from what those more senior prefer?

For preferred characteristics of the job, the answer must decidedly be "no." Young persons appear to attach greatest importance to the rather traditional values of personal independence and material success, a preference which they share with all other civilian, and nearly all Navy, age groups. In this connection, it is worth noting that serving one's country ranks in importance down among a number of seemingly socially unflattering characteristics, such as not having to get one's hands dirty, or having a great deal of free time. Different from all other groups, Navy and civilian, are Navymen 43 years of age and older (enlisted as well as officers), for whom service to one's country is more important, personal independence less important.

The response must also be "no" concerning preferred leadership styles (desired behavior from supervisor and peers). Preferences in this area appear to track actual experience (at a somewhat higher level), an actual experience which is partly situational and fortuitous, partly a function of rank.

The answer is "yes," however, in terms of adherence to, or acceptance of autocratic beliefs. This rises rather sharply with age, despite the fact that both

experience with, and preference for, <u>non</u>-autocratic <u>behaviors</u> from others rises with age. The gap in adherence to autocratic beliefs is largest for young versus older enlisted men. Despite their similarities in other areas, it is nearly as large for older <u>officers</u> versus <u>older enlisted</u> men, the former looking very much like younger officers.

(2) Is educational level related to preferences and expectations?

The answer must be "yes," in relation to <u>some</u> aspects of what people want from a job. Greater education is associated with reduced concern for economic issues, with less concern for serving one's country, and with enhanced concern about having challenging work. Among Navymen, it is also associated with the attachment of greater

importance to personal independence.

The answer is also "yes" in terms of adherence to autocratic beliefs. This declines rather sharply with education, in this instance <u>parallelling</u> preferred and actual leadership practices.

The answer seems to be "no" in relation to preferred leadership practices. As with comparisons by age, rises with educational level appear largely to reflect the "tracking" of actual experience.

(3) Does the region of the country and type of community (rural-urban) in which one grew up affect one's values and preferences regarding the work setting?

Region of the country seems to make little or no difference. The only difference of noticeable size is the somewhat greater importance attached to serving one's country felt by those who grew up in the South.

This same issue distinguishes among community-of-origin categories. Those who grew up in rural areas attach greatest importance to serving one's country, whereas those who grew up in the suburbs attach least importance to it.

Some difference among community categories is also found in relation to adherence to autocratic beliefs.

Those from rural areas are most inclined to accept such beliefs, while those from suburban areas are least likely to do so.

(4) Do women differ from men in their values and preferences concerning characteristics of the work setting?

A rather clear pattern of differences between the sexes in organizational preferences emerges for the civilian sample. Women, in civilian life generally, attach somewhat greater importance than do men to jobs which are cleaner, more clearly directed, less bureaucratic, more "settled," and more secure.

On the other hand, men and women do not differ in the importance which they attach to pay, steadiness of work, and availability of free time. They do not differ in their posture concerning adherence to autocratic beliefs, nor in

the importance which they attach to human factors in organizational life. Little difference occurs in the behavior which they desire from their peers, and no difference in the importance which they attach to serving their country.

(5) Are there racial differences in values and preferences concerning the work setting?

The answer appears to be that such differences are comparatively minor. For the civilian segment, only a few such differences appear, most of them explainable in terms of the effect of discriminatory treatment upon persons' aspirations, that is, the tracking of one's hopes to his experiences.

Among Navymen, differences occur more frequently, but follow no discernible pattern, with one exception: on the critical issues of interpersonal treatment and challenging work, the Navy would appear to have rather successfully removed the effects of discriminatory treatment of minorities at the behavioral level.

Chapter 3

The Navy as a Functioning Organization

The <u>Survey of Organizations</u> questionnaire, from which much of the organzationally relevant material in the present study is derived, is routinely
used by the Institute's Organizational Development Research Program for
purposes of diagnosing the current state of functioning of those organizations with which it undertakes development field experiments (Taylor &
Bowers, 1972). The wealth of information already available from industrial
settings concerning the constructs measured by the instrument, reliabilities, validity, and norms were among the original reasons for relying upon
it in this present effort. Accordingly, it seems appropriate to provide a
diagnostic summary of the Navy as a whole and of certain of its component
units, as similar in form as possible to what would be provided for any
organization in the civilian world attempting in similar form to assess
its present and future positions.

The purpose of any survey-based organizational diagnosis is to attempt, by sifting and analyzing tabulated data, to arrive at an understanding of the manner in which the various functional parts of the organization fit together, work, and contribute to its strengths and problems. The process is analogous to the taking and examining of a series of photographs of the same object, location, or activity, from somewhat different perspectives and at somewhat different points in time. By considering the differences which emerge, insights are obtained about the course of movement of the organization as a social system through the events that determine its present and future success. The purpose is no different in the present instance. In simple form, it may be stated as a series of questions:

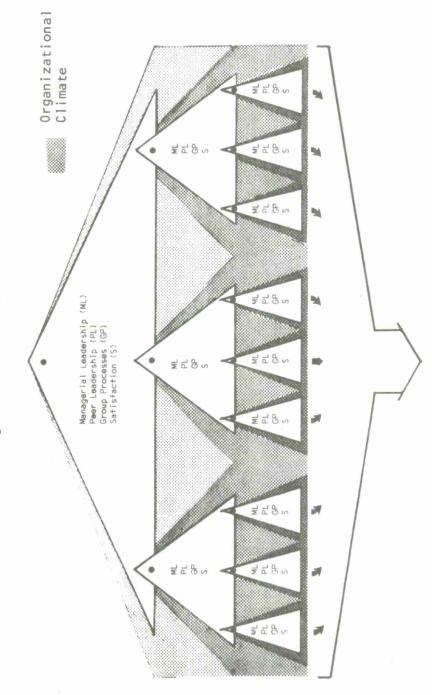
- (1) When examined on that constellation of characteristics which previous research has shown to be associated with effectiveness, how does the Navy compare with norms appropriate to those civilian organizations with which it must compete for manpower and talent in the years immediately ahead?
- (2) In what ways do its component parts (ships versus shore stations, various ship types) differ from one another and from the overall picture which summary data provide?
- (3) What assumptions concerning the reasons for observed strengths and problem areas may be deduced from the data thus analyzed.

The <u>Survey of Organizations</u> questionnaire has as its focus several social-psychological factors critical to effective organizational functioning. In order to better understand the diagnostic materials which follow, it seems useful at this point to describe these factors and the manner by which they affect organizational functioning.

Figure 9 shows an organization as our research has indicated it to be. There are many things that an organization like the Navy is not: it is not simply an array of positions, not just an assortment of tasks, not just the physical assets--ships, buildings, and equipment. It includes all of these things, of course, but an organization is very basically a structure made up of work groups, indicated in Figure 9 by triangles. The triangles are shown as overlapping because, at every level about the very bottom, and below the very top, most persons are members of at least two groups simultaneously; they are subordinates in the group above and superiors in the group below. This dual membership serves the purpose of linkage, of knitting the organization together.

Figure 9

Organizational Processes



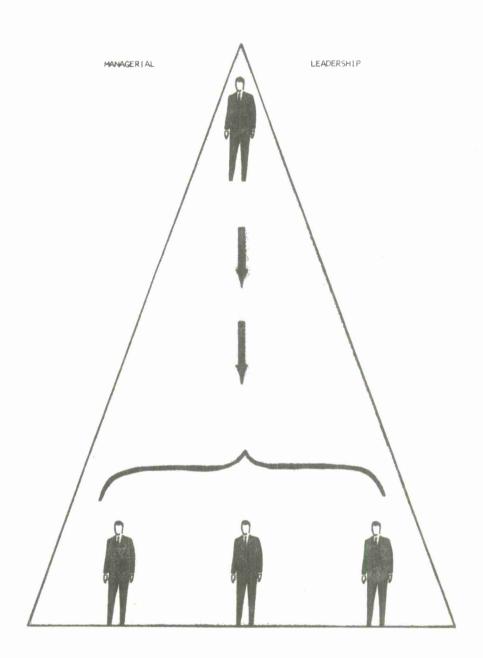
System Output

Within each group several kinds of things occur. First, there is Managerial Leadership--behavior on the part of the supervisor which serves organizationally constructive ends. Second, and partly as a result of what the supervisor does, there is what we term Peer Leadership--behavior by one subordinate toward another which multiples (for good or for ill) what the supervisor does. Third, there are group processes, those emergent properties which characterize the group as a group, whether it works together well or poorly. Finally, there is output from the group, in the form of individual outcomes (e.g., satisfaction, health) and organizational outcomes (e.g., effectiveness).

Each of these factors has been the focus of scientific investigations and can thus be described in greater detail. Figure 10 provides a simple diagram indicating that managerial leadership as described herein refers to the behavior of a superior toward subordinates within a work group. Research has indicated that these behaviors can be described in terms of four categories.

- Support behavior toward his subordinates which lets them know that they are worthwhile persons doing useful work.
- Interaction Facilitation team building, behavior which encourages subordinates to develop close, cooperative working relationships with one another.
- Goal Emphasis behavior which stimulates a contagious enthusiasm for doing a good job (not pressure).
- Work Facilitation behavior which removes roadblocks to doing a good job.

Figure 10



In a similar vein, peer leadership behavior (illustrated in Figure 11) can be described by these categories:

- Support behavior by subordinates toward one another which enhances their mutual feeling of being worthwhile persons doing useful work.
- Interaction Facilitation behavior by subordinates toward one another which encourages the development of close, cooperative working relationships.
- Goal Emphasis behavior by subordinates toward one another which stimulates a mutually contagious enthusiasm for doing a good job.
- Work Facilitation behavior which is mutually helpful; helping each other remove roadblocks to doing a good job.

These managerial and peer leadership behaviors occur within the context of a group which, in turn, is part of a larger organization. Each group exists in an environment made up of conditions created by other groups, particularly those above it in the organization. This is illustrated in Figure 12. The focal group links through its supervisor, to the group above. The higher group produces an "output" which takes the form of behavior, procedures, decisions, objectives, and the like which impinge upon the focal group in the form of a set of conditions, for better or worse, within which it must exist. These effects are indicated by the smaller arrows. The larger arrows indicate that the focal group's environment is also the product of groups other than that immediately above--perhaps from the very top of the organization. This environment or set of conditions is called <u>organizational climate</u>. Our research reveals that it consists of the following elements:

Figure 11

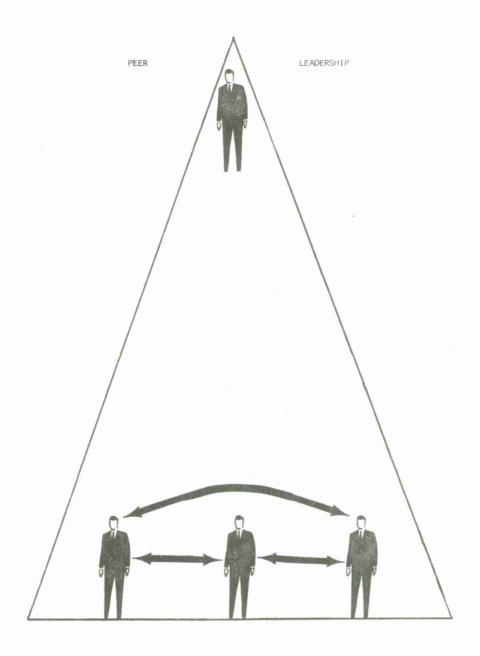
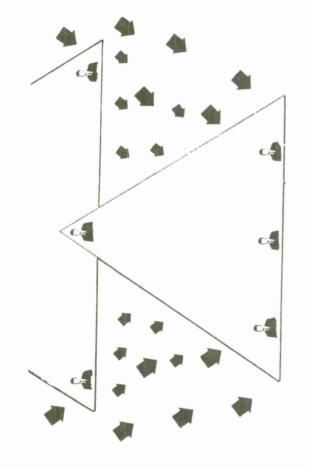


Figure 12

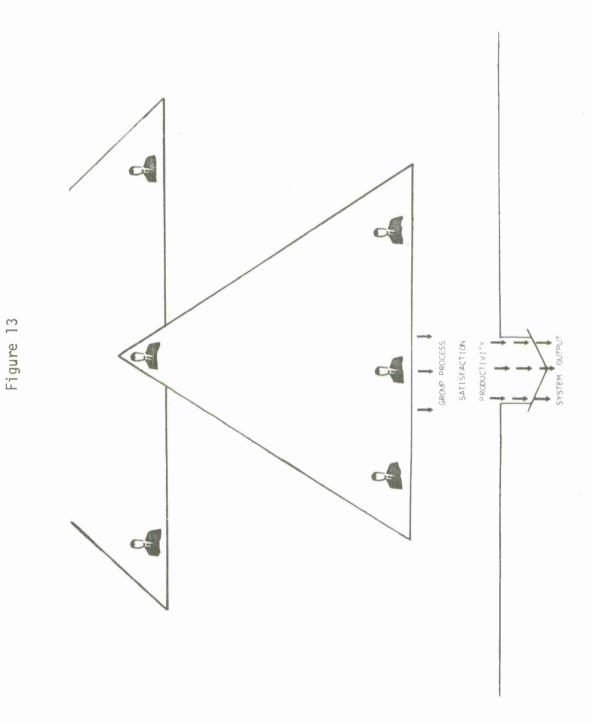


Organizational

Climate

- Human Resources Primacy whether the climate is one which, by its postures and practices, says that people--their talents, skills, and motivation--are considered to be one of the organization's most important assets.
- Decision-making Practices how decisions are made in the organization: whether they're made effectively, at the right levels, and based upon all of the available information.
- Communication Flow whether information flows effectively upward, downward, and laterally in the organization.
- Motivational Conditions whether conditions and relationships in the environment are generally encouraging or discouraging of effective work.
- Technological Readiness whether the equipment and resources are up to date, efficient, and well maintained.
- Lower-Level Influence the influence which lowest-level supervisors and non-supervisory personnel feel they have on what goes on.

As a result of these conditions—climate, managerial leadership and peer leadership—the organization functions in various ways. As Figure 13 illustrates, individual and organizational outcomes result from these conditions. If conditions are positive, the groups function well—they coordinate their efforts, they are flexible, adaptable, etc.—members are satisfied with various aspects of their work lives, and are productive. Negative conditions result in groups which function poorly, contain dissatisfied members and have poor outputs. The performance of the total organization may be thought of in terms of a summary or composite of the functioning of all groups.



All of these social-psychological factors are measured by the <u>Survey of Organizations</u> questionnaire. The diagnostic summary which follows is based upon data gathered with an expanded version of this instrument in late 1972 and early 1973 from Navy personnel from 20 ships and 18 shore stations. The questionnaire and data gathering methods are described in the general methods report of the series (Michaelsen, 1973).

The Navy: Ship and Shore

Figure 14 presents in graphic form for the total Navy sample and for its ship and shore components those measures which constitute the critical indices of the <u>Survey of Organizations</u>. As the figure indicates, the measures are presented in the form of profiles of percentile scores calculated against the total <u>Survey of Organizations</u> normative array. In form they show at what percentile point on this national array of respondents the mean Navy respondent score falls.*

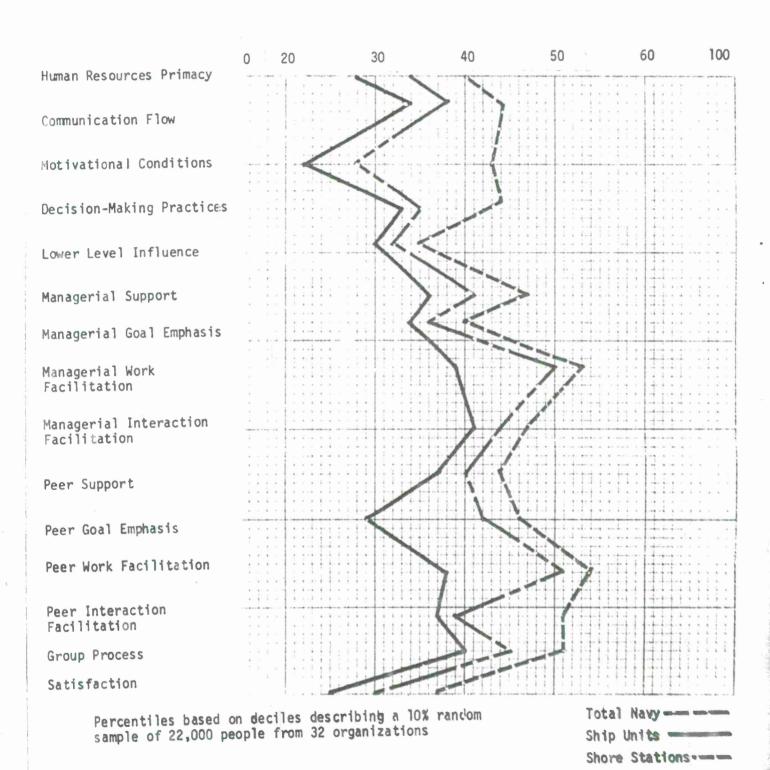
Judging what constitutes being "normal," better than average, or relatively low is at best an arbitrary, subjective process. In the present instance we shall establish at the outset the convention of considering that space between the 40 and 60 percentile marks as the boundaries of the normal or "typical" range, with those measures below that range considered potential problem areas, those above it indications of organizational vitality and strength.

The S.O.O. national array, rather than the civilian cross-section from the present study are used for charting and percentile purposes because of the much larger number of cases contained in the former (more than 20,000). Analyses indicate that the civilian cross-section sub-sample of industrial employees (considered to be the best comparison base in the present instance from that overall cross-section) is not appreciably different from the S.O.O. national array. The mean index value of the two civilian comparison bases is different by only .07 of one scale point, and the profile of indices intercorrelated (rank-order coefficient) .93.

Figure 14

Percentile Profile for Ship, Shore, and Total Navy

Major S.O.O. Indices



As the charted data indicate, on the standard indices of the S.O.O. the Navy in toto falls within the normal range on all but the following measures:

- All measures of organizational climate, but especially Motivational Conditions (for which the Navy respondent is lower than nearly three-fourths of the civilian industrial respondents); Lower Level Influence (for which he is lower than approximately two-thirds of the civilian respondents); and Human Resources Primacy (lower than two-thirds of the civilian respondents).
- Managerial Goal Emphasis.
- Satisfaction.

Further scrutiny of the items making up these indices indicate that the lowest item scores occur on Satisfaction with the Organization (20th percentile), Conditions Encourage Hard Work (23rd percentile), and Satisfaction with the Job (25th percentile). Taken together, they suggest that the conditions of organizational climate which impinge directly or indirectly upon the performance of one's Navy job are seen in a distinctly negative light.

Additional items, not contained in the <u>Survey of Organizations</u> standard item list, but included within the present questionnaire for other purposes, provide additional insights concerning what it is that Navy respondents do and do not mean when they describe "conditions" as discouraging and jobs as less than satisfying. The data suggest that there is no appreciable difference between Navymen and civilians in industrial organizations on the following:

- Whether there is or is not someone to boss them in their work.
- Whether their job provides a chance to learn new skills.
- How hard they're required to work.
- How clean their jobs are.
- Whether their job provides a chance to get ahead.
- How much responsibility they must assume.
- How much free time the job permits.
- Whether their job is one in which they can help make the world a better place.

To this must be added that array of characteristics upon which Navymen describe their jobs as distinctly different from those of civilians.

- As one might expect, more civilians feel negatively about their prospects for steady employment than do Navymen.
- More Navymen feel that, although their jobs require that they learn new skills, those jobs do not permit them to use the skills and abilities which they have and gain, and do not view their jobs as particularly prestigious.
- Although more Navymen than civilians describe their fringe benefits in favorable terms, many more Navymen than civilians view their pay in negative terms.
- Although more Navymen feel that their jobs offer them a chance to serve their country, an even larger proportion feel that it doesn't allow them to stay in one place (even though, by and large, they are no more attracted to moving about than is the typical civilian), and provides them an insufficient opportunity to control their personal lives.

- Navymen, in far greater proportions than civilians, feel enmeshed in a large bureaucracy, one in which they are endlessly referred from person to person when they need help, must go through a great deal of "red tape" to get things done, and are hemmed in by longstanding rules and regulations which no one seems able to explain.

The picture changes somewhat as one moves from a consideration of the total Navy sample to a comparison of two of its major functional subunits, the fleet and the shore establishment. Figure 14, which contained total Navy sample data, also presents line-graph profiles of the data from ship and shore-based respondents. Using the 40 and 60 percentile points once more as demarcating a roughly "normal" range, distinct differences appear:

- While the shore establishment is, on all measures except Lower Level Influence, within the normal range, the fleet is, with two exceptions, below the 40th percentile on all measures.
- The differences between ship and shore are most pronounced on Motivational conditions (an organizational climate measure), with ship respondents reporting levels worse than three-fourths of the national industrial array, whereas shore respondents fall near the median.
- On certain other measures ships fall at low percentile points also, with somewhat smaller differences from shore only because the latter are themselves somewhat low:
 - All other measures of organizational climate.
 - The general satisfaction index.

Once more, an examination of the job preference and description characteristics is revealing. As one might expect from the material

already examined, a higher proportion of shipboard than shore-based Navymen see themselves as:

- "Bossed" in their work.
- Lacking a chance to learn new skills or use those they have.
- Asked to assume a great deal of responsibility.
- Having relatively dirty, non-prestigious jobs.
- Having less free time, and less chance to control their personal lives.
- More hamstrung by bureaucracy.
- Having less chance to serve their country, or to help make the world a better place.
- (Not surprisingly) having less chance to stay in one place.
- More poorly paid and having less adequate fringe benefits.

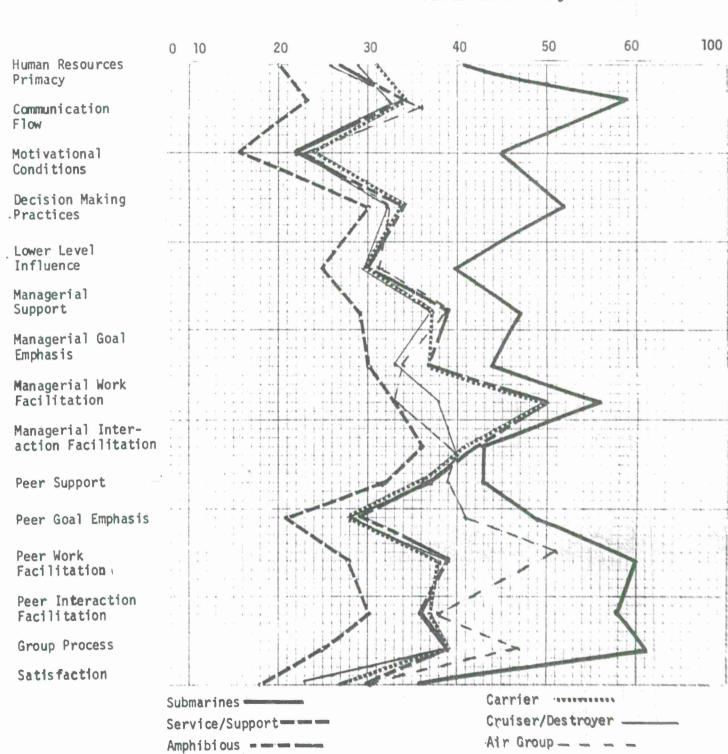
Analysis by Ship Type

The rather substantial, and negative, deviation of the shipboard sub-sample from both the shore-based subsample and the national industrial array suggests that further breaks, by ship type, ought be examined. Accordingly, Figure 15 presents a line-graph display of profiles on the standard <u>Survey of Organizations</u> indices for six types of shipboard respondents: Submarines, Service & Support Vessels, Amphibious Vessels, Carriers, Cruisers & Destroyers, and Air Groups. As these data indicate, submarine units are clearly highest (very much like shore units, and approximately at the median of the national array), whereas service and support vessels are lowest (closer to the 25th percentile). The differences are most pronounced upon Communication Flow and Motivational Conditions (both measures of organizational climate), all peer leadership variables other than peer Support, and Group Process.

Figure 15

Percentile Profile for Ship Unit Types Major S.O.O. Indices

Percentiles based on deciles describing a 10% random sample of 22,000 people from 32 business organizations



Considering paired actual and preferred job characteristics for the six ship unit types, when ship versus shore discrepancy percentages on the <u>actual</u> items are rank-order (Rho) correlated with similar discrepancy percentages for the highest (submarines) versus lowest (service/support vessels), a <u>negative</u> coefficient results! (P = .42, p = .05). What this suggests is that what is associated, in the job characteristics realm, with the higher scores of submarines is not the same as that associated with the differences between shipboard and shore Navymen. Indeed, on many of those previously cited important job characteristics, submariners are no different from those aboard service and support vessels. What is associated, as the ship-type profile stated, are a number of organizational practice characteristics, particularly organizational climate, peer leadership, and group processes.

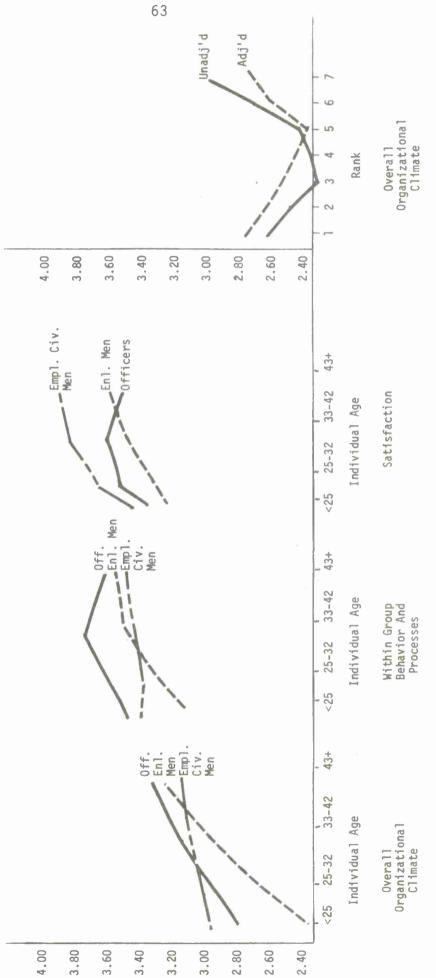
The Effects of Age and Unit Level

In the preceding chapter, evidence was presented which indicated that, for Navymen, (unlike civilians) preferences in the work setting rose or improved with age. At that point it was also noted in passing that these age effects seemed even more pronounced for experienced practices than for preferences and that rank appeared to have effects independent of those associated with age. More careful scrutiny reveals that this is, indeed, the case and suggests that the level of one's unit in the organizational hierarchy, rather than one's own rank, appears to be the more urgent consideration.

Figure 16 presents in graphic form overall statistics for variables in three domains: within-group behaviors and processes, satisfaction, and organizational climate, the latter broken by both age and individual rank.

Figure 16

Experienced Organizational Practices by Age & Rank



These data indicate that there is, for organizational climate and within group behaviors and processes, a rise in quality of experience with age that (a) is steeper for enlisted Navymen than for officers, and (b) scarcely exists for civilians. Satisfaction displays similarly steep rises with age for all three groups, however.

The earlier finding, that personal rank relates significantly to experienced practices independently of such considerations as age, is confirmed in the data presented in the figure. The interpretation offered as potentially plausible—that part of the rise with age reflects a steady rise in positiveness with rank—is not confirmed, however. The present chart illustrates that the effect of rank, both raw and adjusted to remove the effects of education and self-selection as well as age, is curvilinear, first declining and then rising.

Another report in the series represented in this summary volume looked at some of these same effects from an organizational, rather than an individual, viewpoint. The distinction perhaps deserves clarification. One may visualize a social situation in which common practice is to treat the views of older persons with deference, but to disregard or depreciate the views of the young. In such an instance, age would be respected wherever it is found. Similarly, an individual's rank might determine the treatment he receives, more or less regardless of the social setting. In both cases, the effects would be <u>individual</u> in nature, since they originate as a response to characteristics of the individual himself.

Distinctly different from this, however, is a situation in which age or rank are associated with <u>organizational</u> differences. In the latter instance, an individual might be himself young or lower in rank, yet a member of a group which is, on the average, older and headed by a person

whose rank indicates that the unit which he heads is well up in the structure. The treatment which the young person receives in this latter situation might well be different from that received by a person of the same age in a younger, lower status group.

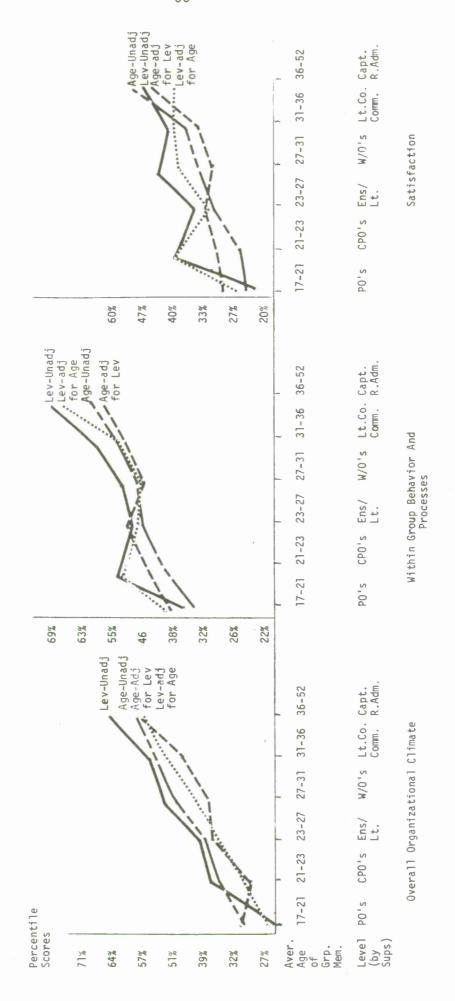
Figure 17 presents data similar to those presented in relation to individual age and rank. In the present instance, however, average age of the group and supervisor's rank provide the basis for an analysis of group means upon clustered variables. Here we see that experienced practices for whole groups rise in positiveness with average age of group members in much the same fashion as was true for individuals. Little change in these curves occurs when one adjusts for the effect of unit level (defined in terms of the supervisor's rank). Unlike individual rank, group level does seem to be associated with a relatively linear rise in the quality of experienced organizational practices, a rise which is only moderately reduced by controlling for average age.

These findings would appear to justify the conclusion that a Navyman's experience is at least in part a function of (a) his own age,
(b) the average age or seniority of the persons in the group to which he belongs, and (c) his group's level or status in the organization.

Combining these characteristics, one may surmise that an older person, in a group whose average age is similarly older, and supervised by a person of higher rank, will experience by far the best organizational conditions. At the opposite extreme, the most unfavorable conditions will be experienced by young Navymen in lower echelon groups, whose members are, like themselves, young.

Figure 17

Experienced Organizational Practices by Average Age of Group Members and Unit Level



Age and the Ship-Shore Differences

We return now to a previously cited finding, that shore-based units appear to be organizationally better than fleet units. The obvious question is whether age differences between ship and shore Navymen may explain these observed practices differences.

Table 2 presents percentage distributions of age for shore, ship, and submarine respondents.* The data provide some reasonable ground for confirming an age hypothesis: the percentage of persons in our shipboard subsample 24 years of age and younger is twice as large as the percentage in the shore-based subsample! Furthermore, the percentage of submariners in this same category falls between the ship and shore percentages, but closer to shore than to ship.

These statistics suggest that, if the measures for Navy ship and shore units were controlled to remove the effects of age, the observed differences would largely disappear. This was, in fact, done, using the Multiple Classification Analysis program (Andrews, Morgan & Sonquist, 1967).

The results (not presented) show that the ship-shore difference is reduced approximately by half by controlling for age differences in the two subpopulations. On the majority of variables, ship-shore differences remain, but of much lower magnitude.

Personal Independence: Bureaucracy and One's Personal Life

One issue stands out with such clarion importance that its relation to age has been isolated in this section for separate treatment.

^{*}Although exact data on age distribution have not been received, informal telephone inquiries confirm at least the general representativeness of our shore and ship age percentages.

Table 2

Age Percentage for Shore, Ship and Submarine Navy Respondents

34	31	27	7
68	17	13	1
47	35	17	2
	68	68 17	68 17 13

Stated most generally, it is personal freedom and independence, the ability to live the personal aspects of one's life reasonably free from external and bureaucratic constraints. Two measures were used in this study to tap the experience and importance of these characteristics: (a) a three-item index of the extent to which one is able to avoid endless referrals, red tape, and unexplainable rules (a high score therefore represents high independence), and (b) a single-item measure of opportunity to control one's personal life.

Both the actual experience and importance of these characteristics are presented in Figures 18 and 19 for all Navymen, Navy Officers, and employed civilian men. The findings are clear and compelling: although Navymen and civilians attach approximately the same levels of importance to these qualities, only civilians experience what could be termed an acceptable or satisfactory degree of them. Young Navymen, furthermore, whether officer or enlisted report an importance-experience gap of very large proportions.

Somewhat similar effects occur with respect to educational level.

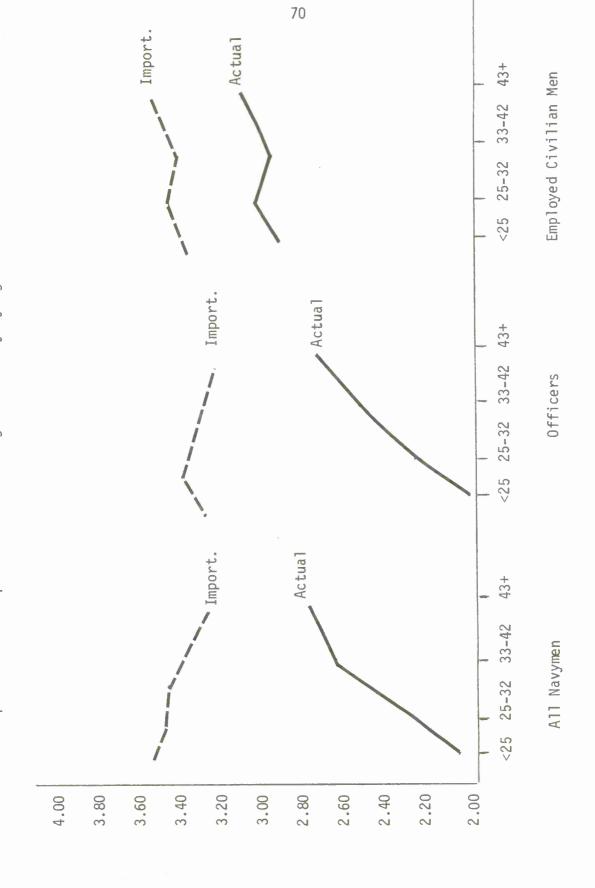
Actual experience and importance ratings for the <u>Avoiding Bureaucracy</u> index are presented in Figure 20 for enlisted Navymen, officers, and employed civilian men. Several facts are apparent from these data.

First, the actual experience curve, like the importance curves, for civilians are flat and comparatively high, indicating that little difference in bureaucratic encounters is associated with educational level.

Second, the Navy actual experience curves, for officers as well as enlisted men, are negatively sloped. In other words, despite more nearly common levels of aversion to bureaucracy, better educated Navymen report more frequent endless referrals, more occurrence of red tape, and a greater

Figure 18

Bureaucratic Encounters: Importance and Experience of Avoiding Bureaucracy by Age



Avoiding Bureaucracy

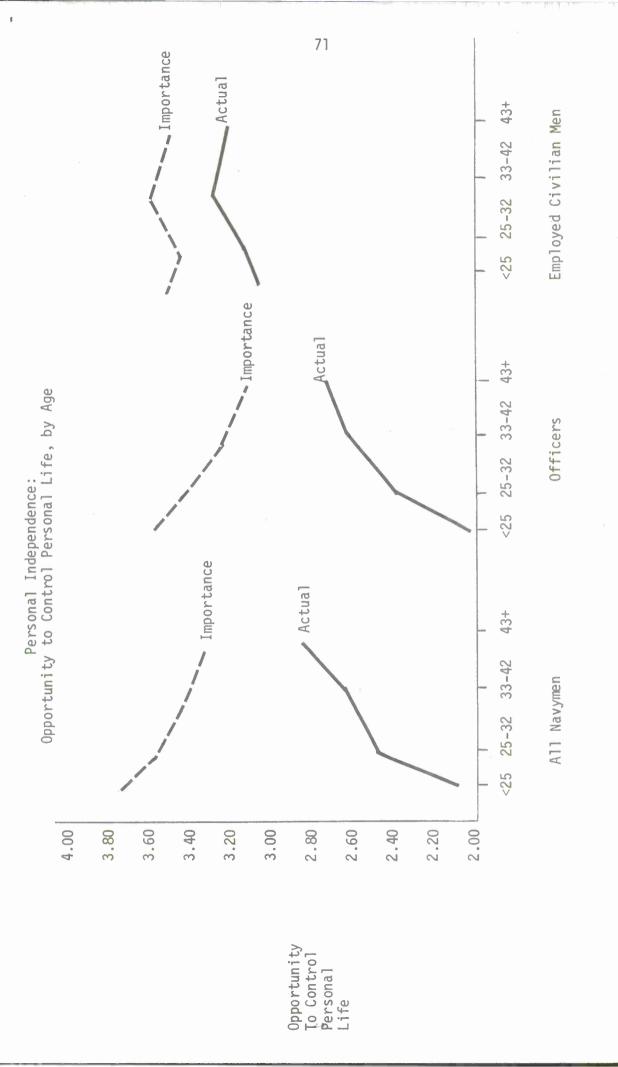
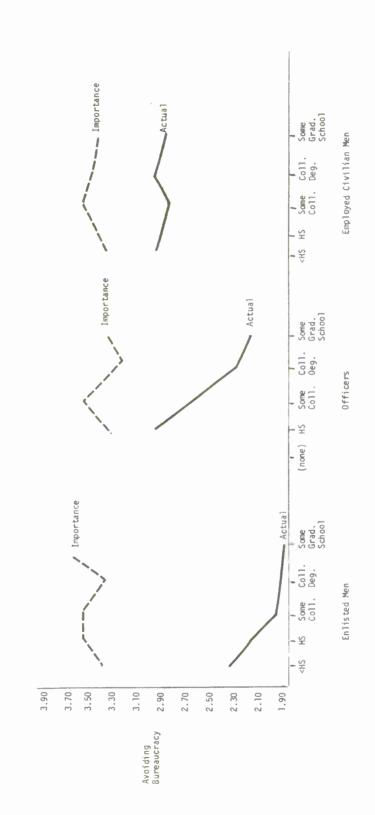


Figure 20

Bureaucratic Encounters: Importance and Experience of <u>Avoiding</u> Bureaucracy, by Educational Level



incidence of rules or regulations which no one seems able to explain than is reported by less well educated persons. Perhaps the former are more sensitive to such issues, or perhaps more complex assignments bring them more often into contact (and conflict) with the bureaucracy. The fact remains that they feel more hamstrung in their work than do the less well educated.

Finally, the other "independence" measure--opportunity to control one's personal life--displays for officers a similar, rather strange, pattern (See Figure 21). The importance attached to being able to control one's personal life rises only slightly with education, a finding in no way surprising. Yet where most societies or social orders provide their technical-educational elites with more, not less, personal freedom, the reverse appears to be true among Navy officers. That the situation is decidedly different from aspirations and experience by comparable groups in the civilian world is indicated by curves presented for employed civilian men.

A Diagnostic Overview

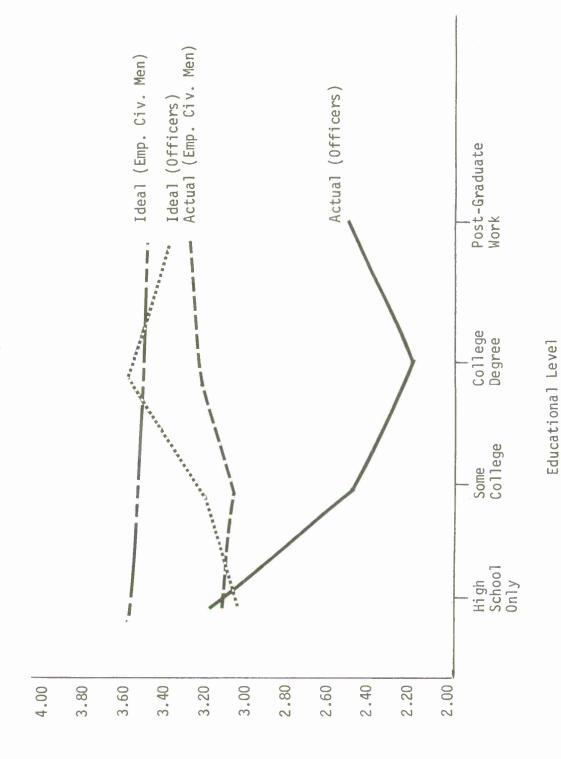
We turn now to two questions of some material significance to the Navy as a viable organization:

- (1) Is the pattern which difference in Navy conditions and practices assumes one which is consistent with the set of principles upon which the Survey of Organizations is based?
- (2) What form do these differences in conditions and practices within the Navy take?

The first of these questions may be stated much more simply in the following form: does the model of organizational management upon which our measures are based hold for the Navy? That general model takes the form

Figure 21

Personal Independence: Opportunity to Control Personal Life, by Educational Level

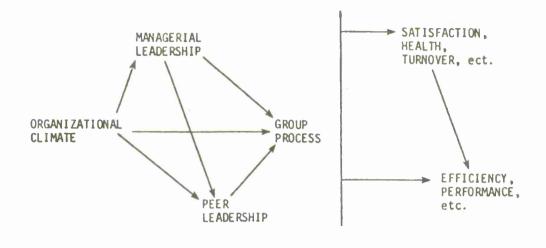


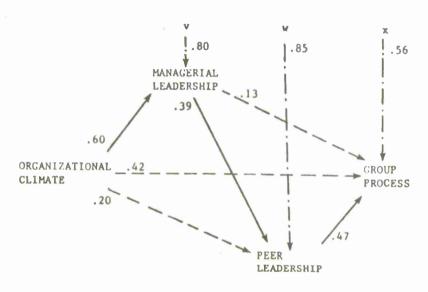
Opportunity To Control Personal Life diagrammed in the top segment of Figure 22 and is based upon the writings of Likert (1961, 1967), expanded and tested by Likert and Bowers (1969, 1973), Bowers and Franklin (1973). "As the model suggests, organizational climate is the primary independent variable. Climate, along with individual differences—i.e., knowledge, skills values—are major determinants of managerial leadership behaviors which, together with organizational climate, shape peer leadership behaviors. These variables, in turn, determine group process. The final variables in this chain are individual outcomes—i.e., satisfaction, health—and organizational outcomes" i.e., efficiency, performance, etc. (Franklin, p. 19).

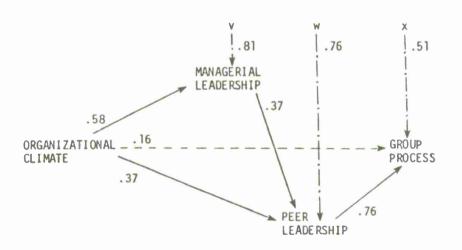
Although this general model is itself the product of research evidence, it has recently been subjected to a major test of the strengths and patterns of its major causal linkages employing a civilian data set from the national array of the <u>Survey of Organizations</u>. (Franklin, 1973). The analysis procedures were basically those of multiple regression employing a path analysis strategy. (Land, 1969). The results of this test are shown in the second segment of Figure 22. They indicate that the model was, indeed, verified.

A similar analysis was conducted with Navy data to determine, as has been indicated, the goodness of fit of these principles to Navy organizational life. The results of that test are presented in the third segment of the same Figure 22. They indicate an overall applicability, with certain specific differences. Specifically, the pattern emerging from the Navy data suggests an equal influence of both organizational climate and managerial leadership upon peer leadership, with the latter the major factor affecting group process.

Figure 22







Although Organizational Climate alone has less direct effect over Group Process, it does have a greater effect upon Peer Leadership, which in turn affects Group Process directly. These data indicate that, even more than in civilian organizations, Peer Leadership behaviors appear to be of utmost importance to organizational functioning within the Navy.

Feeling reasonably confident from these studies that the general body of principles and measures upon which we have drawn are appropriate to an analysis of Navy functioning, we may profitably consider conditions and changes in those conditions across hierarchical levels of the Navy. The data are presented in percentile score form in Table 3. As a footnote indicates, each level has been compared to <u>Survey of Organizations</u> civilian norms appropriate to that level. Thus, groups headed by Captains and Rear Admirals are compared to <u>top management</u> norms, those headed by Lt. Commanders, Commanders, and Warrant Officers to <u>upper middle</u> management norms, those headed by Lieutenants, Ensigns, and Chief Petty Officers to <u>lower middle</u> management norms, and those headed by Petty Officers to <u>non-supervisory blue collar</u> norms.

The data indicate that a problem exists with <u>Human Resources</u>

Primacy, a measure of organizational climate, at all levels. This measure, which indicates the extent to which human concerns are felt to be reflected in policies, practices, and conditions of the organization, falls consistently in the 20-40 percentile range, even at top levels. There is also a <u>Motivational Conditions</u> problem, which appears as such in the table only from the Warrant Officer level downward. The three items which comprise this index display somewhat different patterns, however. One item "To what extent are there things about working here (people, policies, or conditions) that encourage you to work hard?" falls in the

Table 3

Mean Percentile* Scores for Groups at Various Hierarchial Levels

	Per	centile Scor	es for Level	s: Groups	Headed by	
Measures	Capt's & R/Adms	Lt Comm's & Comm's	Warrant Officers	Ens's & Lt's	Chief P.O.'s	Petty Officers
Organizational Climate						
Human Res's Primacy	20	37	35	28	28	35
Motivational Conditions	42	43	37	35	30	24
Decision-Mk Practices	53	47	51	45	40	42
Communication Flow	43	47	47	51	52	51
Lower-Level Influence	47	38	38	45	43	28
Managerial Leadership						
Support	65	53	37	50	49	45
Goal Emphasis	43	47	38	39	42	42
Work Facil.	63	56	56	39	49	48
Interaction Facil.	50	48	47	46	49	50
Peer Leadership						
Support	68	62	43	45	43	47
Goal Emphasis	81	61	45	47	45	37
Work Facil.	70	63	57	54	56	38
Interaction Facil.	65	57	56	52	53	43
Group Processes	78	62	57	53	53	42
Satisfaction	33	37	33	33	36	25

^{*}Each level is compared to norms appropriate to that level.

22-36 percentile range for all levels. The index as a whole remains at the "non-problem" level for the two uppermost levels because the other two items (kinds of motives to which appeal is made, and the motivational effects of disagreements) remain firmly within the normal range. The index becomes a problem when, in the middle management levels, these items also change.

Coincidental with the change in motivational climate is an understandable change in task-related supervisory behavior. Warrant Officers are seen as facilitating the work, but not emphasizing goals, whereas Lieutenants and Ensigns are seen as doing neither exceedingly well. The reasons for this condition certainly include the climate conditions already cited, but may also reflect what is indicated in a question about the supervisor's technical competence. (See Table 4)

Outcomes of Practices and Conditions

Finally, our attention appropriately turns to a consideration of the results of the practices and conditions just discussed. As the previously cited model suggests, satisfaction is one such outcome. Table 3 included, together with measures of organizational functioning, percentile satisfaction scores for groups at each of the hierarchical levels. These data indicate that satisfaction parallels the problems observed in the human and motivational aspects of organizational climate.

Further evidence is presented in Table 5, which shows the separate percentile scores for satisfaction items. These data indicate that every level clearly is comparatively dissatisfied with the unit as such (Ship or Shore station) and with their jobs. Every level except the very top (and perhaps those groups supervised by Chief Petty Officers) are

Table 4

Perceived Technical Competence of Supervisors at Various Hierarchical Levels (Percentile Scores*)

Supervisor's Rank	Percentile Score
Rear Admirals & Captains	53
Commanders & Lt. Commanders	48
Warrant Officers	41
Ensigns & Lieutenants	28
Chief Petty Officers	48
Petty Officers	43

^{*}Each level is compared to norms appropriate to that level.

Table 5
Percentile* Scores for Satisfaction Items

	Perc	entile Sc	ores for Sa	Percentile Scores for Satisfaction with	/ith		
Level (Groups Headed by)	Unit (Ship or Shore Station)	Job	Work Group	Progress To Date	Future Progress	Supv.	Pay
R/Adm's & Captains	15	13	[9	22	38	48	42
Lt. Comm's & Comm's	21	34	39	46	39	88	20
Warrant Officers	28	35	200	47	49	32	44
Ens's & Lieutenants	17	22	32	47	42	32	39
Chief Petty Officers	19	29	40	48	43	41	39
Petty Officers	19	23	24	41	37	36	41

*Each level is compared to norms appropriate to that level.

clearly dissatisfied with both their supervisors and their peers. However, for the most part only the very top is clearly dissatisfied with personal progress, and only the lower middle levels are dissatisfied with pay.

The questionnaire used in the present study contained an item which asked Navymen to indicate their reenlistment intention. In an effort to study the effect upon retention of the conditions and practices described in this chapter, a three-step analysis was undertaken:

- (1) Validate the Reenlistment Intention item against actual retention rate for first-termers aboard ships in the sample. (The result is a directionally-appropriate correlation of .76.)
- (2) Conduct an elaborate, cross-validated multiple regression analysis to identify the best predictors of Reenlistment Intention.
- (3) Rate each person according to situational favorability, defined in terms of those best predictors, and then calculate percentages intending to reenlist.

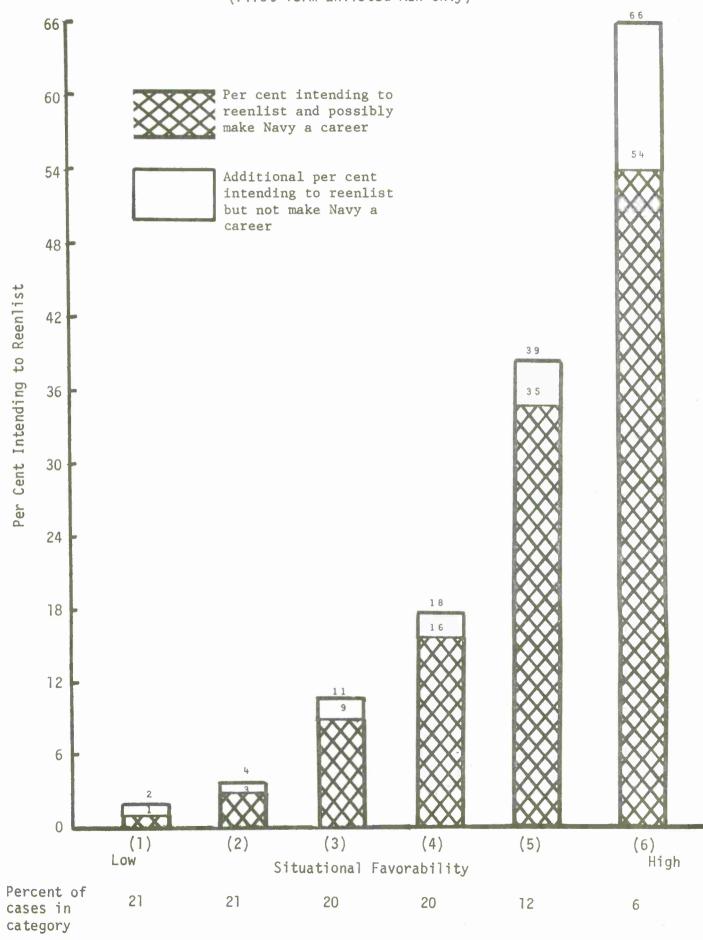
In an effort to take account of both group and individual level affects in combination, first-term enlisted men were assigned coded scores based upon median splits for the five appropriate predictor measures. For those two measures whose effects were visable at the group level (Opportunity to Control Personal Life and Friendly People) individual first-term Navymen were assigned scores of zero if the groups to which they belong have mean scores which fell at, or below, the median of the distribution of group scores on the measures. They were assigned a score of liftheir group reflected a mean that fell above the median of group scores

on the variable. Thus, at the group level, individuals could accumulate scores ranging from 0 to 2. A similar procedure was followed for the three individual level measures. Individuals were arrayed in order of score; the median score was identified; and individuals at or below the median on any of the three variables were assigned a score of zero. Those above the median were assigned a score of 1. For variables identified as best predictors at the individual level, therefore, an individual member of the sample could accumulate a score ranging from 0 to 3. Combining scores for the group and individual level predictors produced an array of scores from 0 to 5; for data processing convenience, a constant of 1 was added to each such score, producing categories from 1 through 6, which represent lowest to highest situational favorability on the five measures combined. There was then obtained a frequency and percentage spread for these six categories of Navymen on the reenlistment intention measure.

A graphic comparison of the six situational favorability categories on percentage intending to reenlist is presented as Figure 23. The results are dramatic indeed. Combining response categories 1 and 2 on the reenlistment intention measure (those who say that their intention is to reenlist and make the Navy a career, plus those who say they intend to reenlist and possibly make the Navy a career) we find that for category 6, the most situationally favorable, over 54 per cent say that they intend to reenlist. Adding those from response category 3--persons who intend to reenlist but not make the Navy a career--produces results which are even more surprising. In the least favorable category no more than two per cent state an intention to reenlist, whereas 98 per cent in this low category state their intention to return to civilian life. The importance of

Figure 23

PER CENT INTENDING TO REENLIST BY SITUATIONAL FAVORABILITY CATEGORY (First-Term Enlisted Men Only)



situational favorability, assessed in these terms, is perhaps reinforced by the rather steady progression of percentages intending to reenlist as one moves from least to most situationally favorable categories, rising to a high of 66 per cent in the most favorable category.

During the course of the study, criterion data on retention rate and certain health measures were made available for the ships represented in the sample. The results of correlating the conditions and practices measures from the survey with ship-wide performance statistics of the kind indicated are presented in Table 6. These findings tend to confirm what has been suggested by the analyses presented in this section of the chapter, that the conditions described diagnostically in these pages bear significant relationships to valued outcomes of the Navy.

Conclusions: What the Data Say About the Navy as a Functioning Organization

- 1. The measures of organizational practices included in the survey represent, not a shotgun array of issues, but a well-researched set of management principles. Appropriately structured, they form a picture or model of how an organization functions effectively. The data show that this model is reasonably valid for the Navy, as for civilian organizations, since:
 - (a) the various measures relate to each other as they should; and
 - (b) the measures relate well to organizational criteria, especially retention rate.
- 2. Although the Navy as a whole falls approximately at the lower border of what is termed the "normal" range (40 to 60 percentile points on the national civilian norms), this conceals a rather

TABLE 6
RELATIONSHIP OF SURVEY INDICES
TO MEDICAL CRITERIA FOR SELECTED SHIPS

			Medical Cm	Medical Criterion/Period		
	Sick Bay	Visits	Lab T	Tests	Pharmacy Units	Dispensed
Survey Index	Fiscal 1972	First Quarter Fiscal 1973	Fiscal 1972	First Quarter Fiscal 1973	Fiscal 1972	First Quarter Fiscal 1973
Human Resources Primacy	10	02	18	19	14	14
Communication Flow	29	26	08	40	23	16
Motivational Conditions	37	30	13	21	26	22
Decision Making Practices	14	24	08	22	10	12
Lower Level Influence	27	54*	14	*65	- 38	- 39
Satisfaction	31	26	.01	25	07	.02
Group Process	27	17	10	42	46*	37
Supervisory Support	03	. 10	.15	03	.04	.04
Supervisory Goal Emphasis	.00	04	.32	.16	.04	90°-
Supervisory Work Facilitation	20	60	.36	.07	03	07
Supervisory Interaction Facilitation	24	.10	.16	80.	.05	80°
Peer Support	-, 15	.10	16	35	29	08
Peer Goal Emphasis	36	33	70	*69*-	.35	- 38
Peer Work Facilitation	44	32	05	52*	- 53*	45*
Peer Interaction Facilitation	- 38	23		42	5]*	48*
Supervisory Needs	.25	.20	08	07	11	18

*p is less than .05

crucial difference. The shore-based units are well within that normal range, whereas the fleet units are distinctly <u>below</u> it. The sole exceptions are the submarines, which resemble the shore units in quality or organizational functioning.

- Most of the more serious fleet problems appear to lie in organizational climate conditions and leadership behaviors, rather than in the intrinsic properties of jobs performed. Thus,
 - (a) Human Resources Primacy--a measure of organizational climate which indicates the extent to which human concerns are felt to be reflected in policies, practices, and conditions of the organization--falls consistently in the 20-40 percentile range, even at top levels.
 - (b) Motivational Conditions—an organizational climate measure indicative of the extent to which policies, practices, and conditions encourage the doing of an effective job—fall in the 20-40 percentile range for all levels except those representing more senior officers.
 - (c) Task-related supervision is similarly a problem at all levels except those representing more senior officers.
 - (d) Satisfaction is comparatively low for all echelons with regard to the organization itself, the job, one's supervisor and one's peers. On the other hand, only the very top is clearly comparatively dissatisfied with personal progress, and only the lower-middle levels are comparatively dissatisfied with pay.

- (e) No differences occur between Navymen and civilians on such job-structural characteristics as:
 - (1) the chance to learn new skills (although Navymen do feel comparatively short-changed in the opportunity to <u>use</u> skills once learned).
 - (2) how hard one must work;
 - (3) the responsibility assumed;
 - (4) the chance to get ahead;
 - (5) the cleanness or dirtiness of the job;
 - (6) the amount of free time permitted.
- 4. Much of the problem pattern occurs as well in, and perhaps ties critically to, a perceived undue absence of personal independence, in the form of <u>bureaucracy</u> and an unnecessary intrusion into Navymen's personal lives.
- 5. Like the organizational climate and leadership problems, this personal independence shortage is:
 - (a) age-related--the favorability of practices experienced by Navymen rises with both personal age and the average age of the group to which one belongs. Until a Navyman reaches 30 years of age, or is in a group whose average age approximates that figure, he does not experience conditions as favorable as those experienced by civilians of almost any age.
 - (b) rank-related--for enlisted men, experienced conditions steadily decline from E-1 to E-5, then rise to a peak at E-7.
 - (c) unit-level related--experienced conditions improve steadily with the rank of one's supervisor.

Chapter 4

Values and Attitudes About Military Service*

Under an all-volunteer system, adequate staffing of the armed forces depends upon the perceived attractiveness of military service as a work role. Such perceptions include views on working conditions in the services, levels of compensation, fringe benefits, and the like; but they also include broader considerations of what the nation's military policies are—and what they ought to be. Using data from a cross-section of civilians, and a cross-section of Navy personnel, this chapter explores attitudes about military service, and the way those attitudes are linked to views about enlistment or re-enlistment.

The questionnaire administered to both civilian and Navy samples included a series of items dealing with values, preferences, and perceptions about military service. The questions were designed in such a way that they could be answered by both civilians and servicemen. It seems likely, of course, that the Navy respondents answered these items with particular reference to their own experience in the service, whereas many civilians answered with a more general frame of reference. Nevertheless, we think that the questions are in many respects quite comparable for both groups. The analyses were conducted separately for five groups: Navy officers, first-term Navy enlisted men, later-term Navy enlisted men, civilian men, and civilian women. The patterns of correlations observed for each of these groups were basically quite similar, thus suggesting that the items and indexes have common meanings for the several analysis subgroups.

^{*}This chapter is based heavily upon two earlier technical reports (Bachman, 1973; Bachman, 1974)

<u>Dimensions of Military Attitudes</u>

Table 7 summarizes the major dimensions of military attitudes treated in this chapter.* We will describe the views of Navy men and civilians along these dimensions, following the sequence presented in the table. Then, in a later section, we will look at the ways in which these attitudes are linked to views about enlistment and re-enlistment.

The Military Work Role. When asked to describe job opportunities in the military service along a number of different dimensions, our respondents rated the military rather high in terms of opportunites to get more education, and high in terms of chances to advance to a more responsible position. Figure 24 presents the data for all five analysis groups. When we turn to matters of personal fulfillment, the picture of military service becomes somewhat less favorable. Most civilians, plus Naval officers and later-term enlisted men, said the chances to have a personally more fulfilling job and also get their ideas heard exist to at least some extent. But first-term enlisted men in the Navy showed substantially lower ratings of these items--they saw more limited opportunities for getting their ideas heard or having a personally fulfilling job in the military service.

It is interesting to note in Figure 24 that each of the five analysis groups tended to rate the different dimensions of military job opportunities in the same order. While officers and later-term enlisted men gave

A more detailed description of the measures, including a listing of items and rules for index construction, are found in an earlier report (Bachman, 1974)

TABLE 7

Summary of Military Attitude Measures

THE MILITARY WORK ROLE

Perceived Military Job Opportunities

Perceived Fair Treatment in Services

Perceived Discrimination Against Women and Blacks

MILITARY LEADERSHIP

Perceived Competence of Military Leaders

MILITARY INFLUENCE OVER NATIONAL POLICY

Preference for Higher Military Spending and Influence

* Role of Military in Society Perceived as Negative

Perceived Military (Versus Civilian) Influence

Preferred Military (Versus Civilian) Influence

Adequacy of Military Influence (Perceived Minus Preferred)

FOREIGN POLICY AND MILITARY POWER

Support for Military Intervention

Preference for U. S. Military Supremacy

Vietnam Dissent

ISSUES INVOLVED IN AN ALL-VOLUNTEER FORCE

Support for Amnesty

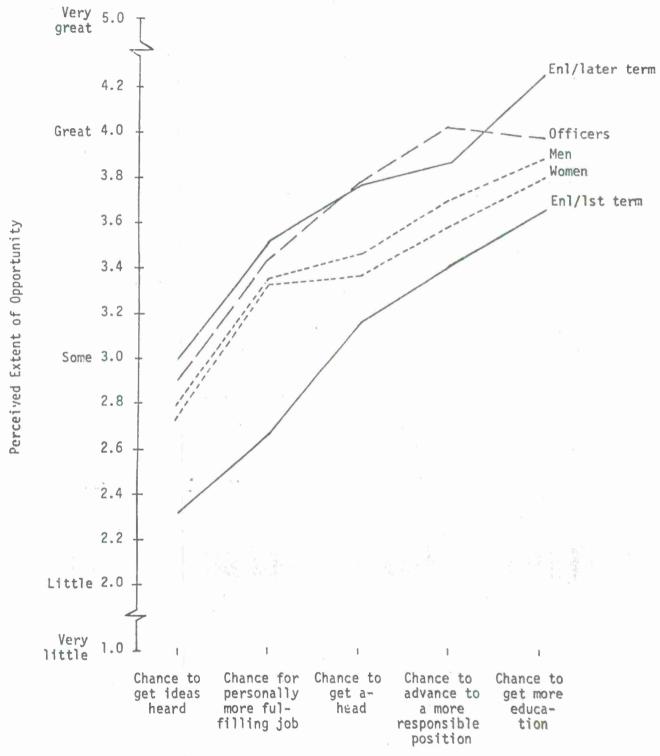
- * Opposition to Unquestioning Military Obedience
- * Opposition to Obedience in My Lai-type Incident

 Preference for "Citizen Soldiers" (Versus "Career Men")

 Preference for Wide Range of Political Views Among Servicemen

NOTES: Measures marked with an asterisk (*) are single items.

Figure 24
Military Job Opportunity Items



Question wording:

[&]quot;To what extent do you think the following opportunities are available to people who work in the military services?"

consistently higher ratings of military work opportunities than did the first termers, they all gave their highest scores to educational opportunities and chances to advance to greater responsibility, and they all gave lowest ratings to chances for getting their ideas heard. The fact that this same pattern also appeared among civilians suggests either that there is an underlying reality that is being accurately perceived or else that there is a stereotype of military job opportunites that is pervasive enough to be held by servicemen and civilians alike.

The lower ratings by first-term enlisted men in the Navy were repeated on two other items dealing with perceptions of fair treatment in the military services. When asked, "To what extent is it likely that a person in the military can get things changed and set right if he is being treated unjustly by a superior?", the most common response by first-termers was "to a little extent," while later-termers and officers most commonly checked "to some extent." Another item asked, "Do you personally feel that you would receive more just and fair treatment as a civilian or as a member of the military service?" Naval officers and later-term enlisted men rated their chances for fair treatment as being "about the same" in military or civilian life. First-term Navy enlisted men most often chose the response "more fair as a civilian," and some checked the response "much more fair as a civilian." On both of these questions the civilian responses tend to fall between the first-term Navy enlisted men and later-termers.

When asked about discrimination against women or against blacks in the armed services, responses for all groups tended to average between "a little extent" and "some extent." When responses for white and black Navy men were examined separately, we found that the median rating by

blacks was that anti-black discrimination exists "to a great extent."

This finding would seem to indicate that black Navy men found the military services unattractive. However, when we compared black and white Navy enlisted men's ratings of just and fair treatment in military service versus civilian life, the questions described in the preceding paragraph, we found that blacks were more favorable toward military service than were white. Black enlisted men in the Navy, on the average, rated their chances for fair treatment in the military services as being "about the same" as in civilian life. In other words, while blacks in the Navy perceived a considerable amount of racial discrimination in the military services they apparently found it no worse than the level of discrimination they would expect as civilians.

Military Influence Over National Policy. When asked whether the armed services presently had too much or too little influence on the way the country is run, the most typical response was that the level of influence is "about right." Among civilians and first-term enlisted men, the proportion saying the military has too much influence were greater than those who said the military has too little influence; the reverse was true for later-term Navy enlisted men. When asked whether they think the U.S. spends too much or too little on the armed services, most civilians replied "too much" or "about right." The most typical response for Navy officers and first-term enlisted men was "about right." For later-term enlisted men the responses were either "about right" or "too little."

The issue of military influence was explored further with a series of questions about the influence that military leaders and civilian leaders (such as the President or Congress) have over decisions affecting

national security. The questions were arranged in pairs, with the first part of each pair asking the respondent to rate the way things actually are now, and the second part asking the respondent to rate how he would like things to be ideally. These actual and ideal ratings were obtained for each of the following topics:

Who has most influence over whether to involve U.S. servicemen in foreign conflicts?

Who has most influence over what tactics to use on the battle-field?

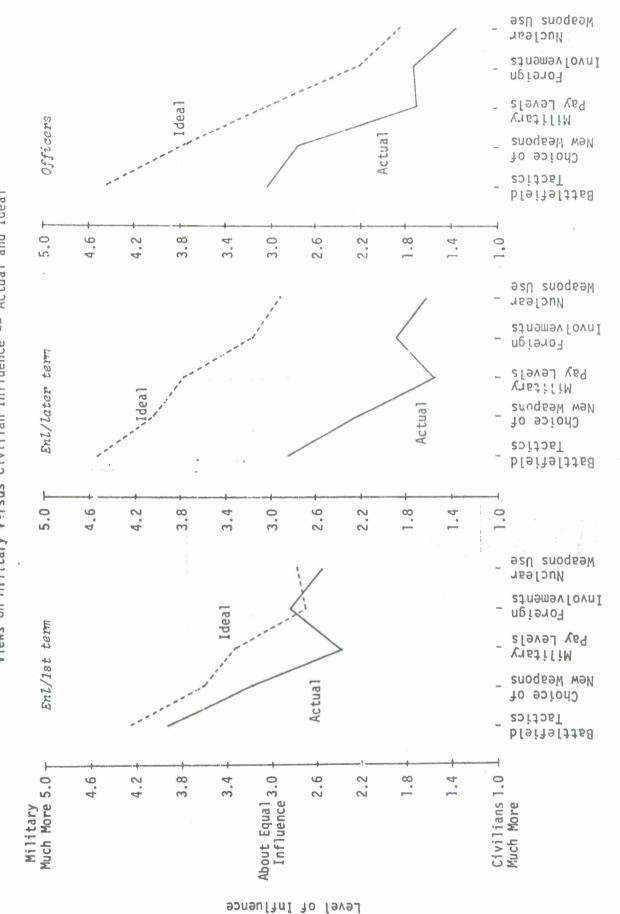
Who has most influence over which new weapons systems to develop?

Who has most influence over levels of pay and fringe benefits?
Who has most influence over whether to use nuclear weapons?

Responses ranged from saying that the military had much more influence, to saying that military and civilian influence were about equal, to saying that civilians had much more influence. The actual and ideal ratings are summarized in Figure 25. An examination of the figure leads to a number of comments and conclusions:

- 1. Both actual and ideal influence ratings are in nearly the same order for all three groups of Navy men plus civilian men and women. On the average, all groups felt that battlefield tactics are and should be the area of greatest military influence, while the areas of greatest civilian influence were seen to be decisions about foreign involvements and the use of nuclear weapons.
- 2. The data for Navy officers show considerable differentiation in the way they rated the five areas, especially in their statements about the way they would like things to be. On the one hand,

FIGURE 25 · · · Views on Military Versus Civilian Influence -- Actual and Ideal



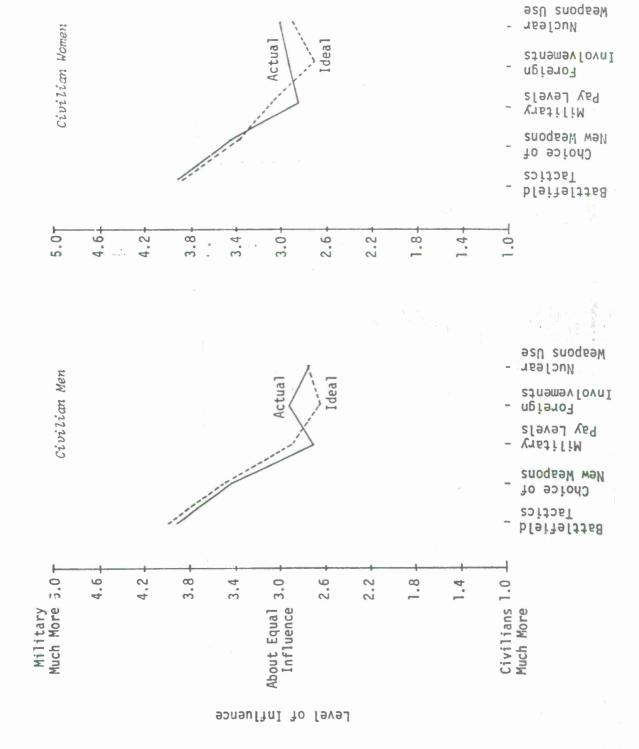


FIGURE 25 (CORT.)

they preferred a good deal more military than civilian influence over choice of battlefield tactics; however, their responses in this respect were not sharply different from those of enlisted men or, for that matter, civilians. On the other hand, they were far more likely than any other group of respondents to emphasize civilian decision-making in the areas of foreign involvement and the use of nuclear weapons. No doubt Navy officers have had occasion to give these matters more thought and study than either enlisted men or the average civilian. The result seems to be that they are more discriminating in their ratings, and also far more willing to grant decision-making priorities to civilians in the areas that are traditionally "civilian."

- 3. The data for civilian men and women show a striking degree of satisfaction with the status quo as they perceived it—at least on the average. The typical civilian respondent felt that military leaders presently have somewhat more influence over tactics, and this was seen as the way things ought to be. In such matters as military pay, foreign involvements, and the use of nuclear weapons, most civilians felt that military and civilian leaders are about equal in influence, and once again they seem to think this is the way things ought to be.
- 4. But if the average civilian seemed satisfied with the status quo, the average career man in the Navy most surely was not. If we take seriously the differences between the ratings of how things are and the ratings of how things ought to be, then we must conclude that there was a great deal of dissatisfaction with

the status quo among Navy officers and especially among later-term enlisted men. Later-term enlisted men preferred somewhat higher levels of military influence than did civilian respondents; but far more dramatic were the differences in perceptions of the way things presently are. Career men in the Navy--both officers and enlisted men--tended to see military leaders as far less influential than civilian leaders, and this stands in marked contrast to the way civilian respondents saw things.

5. The first-term enlisted men in the Navy showed much smaller differences between their ratings of actual and ideal levels of military versus civilian influence. Their ratings of the current reality were substantially different from those ratings by career men--both officers and later-term enlisted men. As a result, the first-termers showed only moderate dissatisfaction with the status quo.

What are we to make of the large discrepancies between the actual and ideal ratings made by Navy officers and later-term enlisted men? One way of viewing these discrepancies is to say that career men in the Navy (and probably in other branches of the military service as well) tend to feel relatively powerless as a group over decisions that vitally affect their lives. They think the decisions are made mostly by civilians rather than by their own leaders. An alternative perspective is to note that these career military men think there should be a substantial increase in military influence across a whole range of decision-making, from battle-field tactics to the use of nuclear weapons. Some critics of an all-volunteer military force have argued that its heavier reliance on career men would encourage a "separate military ethos," and thus constitute a

political threat. These differences between actual and ideal influence ratings, which were especially strong among later-term enlisted men, can hardly be reassuring to such critics.

Foreign Policy and Military Power. The decade of U.S. involvement in Southeast Asia has no doubt been an important--perhaps the dominant--factor in shaping recent attitudes toward the military service and their role in international policy. Responses to a series of items about the Viet Nam War indicate that respondents tended to "agree mostly" that fighting the war in Viet Nam was damaging to our national honor or pride, and was not really in the national interest. Agreement was stronger among civilian men in their twenties and first-term Navy enlisted men; the highest levels of agreement were found among young Navy officers. There was also a good deal of agreement with statements that the U.S. involvement in Viet Nam was important to fight the spread of communism, to protect friendly countries, and to show other nations that we keep our promises. While most categories of respondents showed more agreement than disagreement with these latter statements, young men in their twenties showed stronger tendencies to disagree. This was true for civilians, and especially for Navy officers.

One of the surprises contained in our data was the finding that civilian women on the average were a bit less critical of Viet Nam policy than civilian men. This difference is due entirely to the fact that young men in their twenties were particularly critical of Viet Nam policy, whereas women of all ages showed pretty much the same average levels of criticism.

It might be argued that some of this criticism by young men arose from a dissatisfaction with the way in which our Viet Nam involvement ended--

feeling that somehow the U.S. should have "won." This might account for part of the criticism among young Naval officers, but it does not square very well with the total set of our findings for civilians. The pattern in our data has been rather consistent across a wide range of items: compared with women the same age, civilian men in their twenties were more critical of military leadership, influence, and spending; more importantly, they were not quite so willing to use war as a means of protecting our economic interests or protecting the rights of other countries, and they saw less need for military superiority over all other nations. These young men are not best described as anti-military; for the most part, they were fairly supportive of a strong military posture, and few endorsed the idea of gradual unilateral disarmament. Still, there is no escaping the fact that these are the men who came of age during the Viet Nam conflict and who are likely to perceive its dangers and disadvantages in the most personal terms. Perhaps because of this they displayed the greatest degree of caution about such involvements in the future, and their caution seemed to extend to the military establishment in general.

Issues Involved in an All-Volunteer Force. In the years of debate which preceded the return to an all-volunteer staffing of the armed forces, a number of problems or objections were raised. Some questions were concerned with costs, others had to do with whether a sufficient number of volunteers could be obtained, and perhaps the most profound set of issues centered around the societal and political impact of moving to an all-volunteer force. We noted earlier the concern about a "separate military ethos"—a professional military force made up of career men rather than

"citizen soldiers." Such issues and problems have been discussed at length elsewhere (see especially Tax, 1967; United States President's Commission on an All-Volunteer Armed Force, 1970) and we have dealt with them also in some of our previous research (Bachman and Johnston, 1972; Johnston and Bachman, 1972). One of our purposes in the present study has been to tap levels of public awareness and concern over some of these issues.

The results of both interview and questionnaire items among civilians indicates strong majority support for the concept of the all-volunteer force, and relatively little concern about some of the issues which have been raised as potential problems. The nationwide civilian sample supported the all-volunteer approach rather than the draft by nearly a two-to-one margin. There was also very strong support for the higher military pay levels considered to be necessary under a volunteer system. (Not surprisingly, the Navy respondents were particularly favorable to the idea of higher pay levels.)

When asked about issues related to the types of people who would staff the military services there was a slight tendency for people to favor "citizen-soldiers" over "career men," but the views seemed rather mixed. Civilian responses to open-ended interview items about the all-volunteer force left a dominant impression that most people have not thought much about the question of what kinds of servicemen will, or should, staff an all-volunteer armed force.

The area of obedience was singled out for a series of questions.

The first stated the matter of obedience in abstract but very simple terms:

"Servicemen should obey orders without questions." The majority of

civilians checked that they agreed or agreed mostly with this item, but that was not true for those in their twenties. Navy men in their second or later enlistments also tended mostly to agree, while those in their first terms showed stronger tendencies to disagree. Officers agreed with this item for the most part; however, their answers were quite different when faced with a specific issue of obedience based on the My Lai massacre. The My Lai questions, which were developed out of the work of Kelman and Lawrence (1972), dealt with a group of soldiers in Viet Nam ordered to shoot the inhabitants of a suspect village. The items and the responses are summarized in Table 8. A glance at the percentages in the table is sufficient to indicate that there were substantial differences among the Navy and civilian analysis groups. Fewer women than men thought that the soldiers in the hypothetical question should follow orders and shoot. The support for shooting was also lower among first-term compared with later-term enlisted men. But the lowest numbers who thought soldiers should shoot, and by far the largest numbers in favor of refusing to shoot, were found among the Navy officers. No doubt this is a matter that has been thought about and discussed to a considerable degree by officers in all branches of military service. If the "lesson" to be learned from the My Lai massacre and the subsequent trial of Lt. Calley is that sometimes orders should not be obeyed, it appears that the message came through most clearly to the officers in our sample.

Did the Navy officers think that most people would, in fact, refuse to shoot? About one-third of them did, but a slightly higher proportion thought that most people would follow orders and shoot. The youngest officers experienced the greatest discrepancy between what they thought

TABLE 8
Views on Obedience

	1	Navy Sample (men only)			Civilian Sample		
54.	Suppose a group of soldiers in Vietnam were ordered by their superior officers to shoot all inhabitants of a village suspected of aiding the enemy including old men, women and children? In your opinion, what should the soldiers do in such a situation?	term	later- term (N=829)	offi- cers (N=308)	Men (N=735)	Women (N=1021)	
	l Follow orders and shoot	20%	28%	15%	28%	15%	
	2 Refuse to shoot them	39	30	59	39	36	
	3 Don't know	40	42	26	34	49	
		99*	100	100	101	100	
55.	What do you think most people actually would do if they were in this situation?						
	l Follow orders and shoot	35	30	38	39	36	
	2 Refuse to shoot them	25	24	32	26	22	
	3 Don't know	40	46	30	35	42	
		100	100	100	100	100	
56.	What do you think you would do in this situation?					. =	
	l Follow orders and shoot	22	29	12	29	13	
	2 Refuse to shoot them	42	30	57	39	44	
	3 Don't know	36	41	31	32	43	
		100	100	100	100	100	

^{*}Due to rounding, percentages do not always add to 100. Missing data have not been included in calculating percentages.

most people would do and what they believed ought to be done in such a situation. A similar but less pronounced pattern occurred among civilian men; the younger ones showed a substantial discrepancy, on the average, while the older men did not.

Were attitudes in this area related to level of education? The pattern was consistent across all groups; the higher the level of education, the greater the proportion who felt that soldiers should refuse to obey such orders. On the other hand, views about what most people actually would do showed no consistent relationship to educational level.

Military Attitudes: An Overview. An examination of intercorrelations among the items summarized above, as well as other items in the C section of the questionnaire, suggested that there is what might be called a general factor of promilitary (or anti-military) sentiment involved in most of our measures.* Those highest in pro-military sentiment rated military leaders as quite competent, gave the services high marks for job opportunity and fair treatment, stated a preference for higher levels of military spending and influence, and saw the role of the military in society as predominantly positive. Their foreign policy views were rather "hawkish"--they were relatively supportive of U.S. military intervention in other countries, they preferred a position of military supremacy (rather than parity with the U.S.S.R.), they were most likely to support past U.S. involvement in Vietnam, and they were strongly opposed to ammesty for those who refused to serve in Vietnam. Finally, they placed a high value on obedience to military authority--they tended to agree with the statement

^{*}For a more detailed treatment of these intercorrelations, see Bachman (1974)

that "servicemen should obey orders without question," and some maintained this position even when faced with a My Lai-type incident.

Among all the dimensions summarized above, views about Viet Nam showed a particularly strong relationship to the overall dimension of military sentiment. One possible interpretation for this relationship is that those who were generally supportive of the military establishment were, as a result, the least critical of our past involvement in Viet Nam. In other words, Viet Nam views were shaped by broader attitudes about the military. An alternative interpretation is that views about the Viet Nam involvement were generalized to the larger military establishment, so that negative feelings about Viet Nam led to negative views about military spending, influence, leadership, and the like. These two interpretations are not mutually exclusive—indeed, it is likely that both patterns of causation were at work. But it is surely worth emphasizing that, as of early 1973, feelings about Viet Nam were very closely linked to overall sentiments about the military services.

Military Attitudes Linked to Views About Enlistment

A guiding assumption in this research has been that general attitudes about the military services have an impact on more specific views about enlistment and reenlistment. In order to ascertain attitudes toward enlistment in a form that would be applicable to all respondents, we asked the following hypothetical question: "If you had a son in his late teens or early twenties who decided to enter the military service, how would you feel about his decision?" Response categories included stringly positive, mostly positive, mostly negative, strongly negative. Civilian views about a son's enlistment were mostly positive, responses for Navy officers and

later-term enlisted men were quite positive, but first-term enlisted men showed somewhat less enthusiasm on the average. As we shall see, first-termer's responses to the question about a son's enlistment were strongly correlated with their own reenlistment intentions.

Now let us consider the extent to which our measures of military attitudes are correlated with pro-enlistment views--i.e., with attitudes toward a son's enlistment. Table 9 displays the product-moment correlations for each of our analysis groups. As the table indicates, those dimension which were cited above as involved in a general pattern of promilitary sentiment, are also linked to positive feelings about the possibility of a son's enlistment. We will look at a few of those relationships in greater detail.

Perceptions of military job opportunites were one of the dimensions that showed a strong relationship to favorable attitudes about a son's enlistment. Figure 26 shows the effect quite clearly. The figure also indicates somewhat stronger effects for Navy men than for civilians (reflected in steeper trend lines for the Navy groups). The shaded area at the bottom of the figure indicates the proportion of first-term enlisted men who said they planned on reenlistment. The relationship between reenlistment plans and perceptions of military job opportunities is quite striking: only five percent of those who saw limited opportunities planned to reenlist, whereas nearly half of those who saw very good job opportunites planned on reenlistment.

Several other dimensions which showed particularly strong connections to views about enlistment are highlighted in Figures 27, 28 and 29. Enlistment views were strongly linked to perceptions that military leaders are competent. They were also linked to views about past U.S. actions in

TABLE 9

Correlations of Pro-Enlistment Views

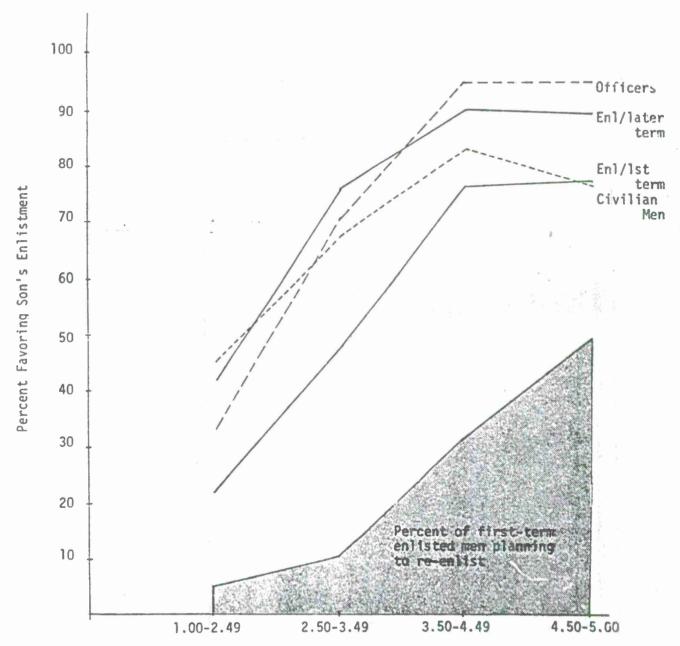
Correlations* With Positive Feelings About a Son's Possible Enlistment:

	Navy Enli	Navy Enlisted Men		Civilian	ı Sample
	First	Later	Offi-	Men	Women
	Term (N=1194)	Term (N=834)	cers (N=310)	(N=753)	(N=1053)
THE MILITARY WORK ROLE					
Perceived Military Job Opportunities	.45	. 37	. 54	. 29	.22
Perceived Fair Treatment in Services	.43	.41	.43	.34	.30
Perceived Discrimination Against Women and Blacks	12	21	15	25	14
MILITARY LEADERSHIP					
Perceived Competence of Military Leaders	.47	.38	.51	.41	.31
MILITARY INFLUENCE OVER NATIONAL POLIC	Y				
Preference for Higher Military Spending and Influence	.33	.13	.52	. 34	.32
Role of Military in Society Perceived as Negative	34	20	37	34	25
Perceived Military (Versus Civilian) Influence	14	02	30	19	12
Preferred Military (Versus Civilian) Influence	. 27	.11	.37	. 29	. 22
Adequacy of Military Influence (Perc. Minus Pref.)	26	09	43	34	24
FOREIGN POLICY AND MILITARY POWER					
Support for Military Intervention	.24	. 20	. 29	.20	.14
Preference for U.S. Military Supremacy	, 26	.11	.33	. 24	.22
Vietnam Dissent	38	33	42	34	34
ISSUES INVOLVED IN AN ALL-VOLUNTEER FO	RCE				
Support for Amnesty	36	30	43	34	33
Opposition to Unquestioning Military Obedience	34	23	26	35	24
Opposition to Obedience in My Lai-type Incident	25	08	15	25	24
Preference for "Citizen Soldiers" (Vs. "Career Men")	04	11	18	08	08
Preference for Wide Range of Views Among Servicemen	,06	02	10	12	03

^{*} Entries are product-moment correlations. Correlations of .11 or higher are considered statistically significant for Navy enlisted men and civilian men and women; the significance level for officers is .18. (The criterion is .001, two-tailed, using the test for random samples.

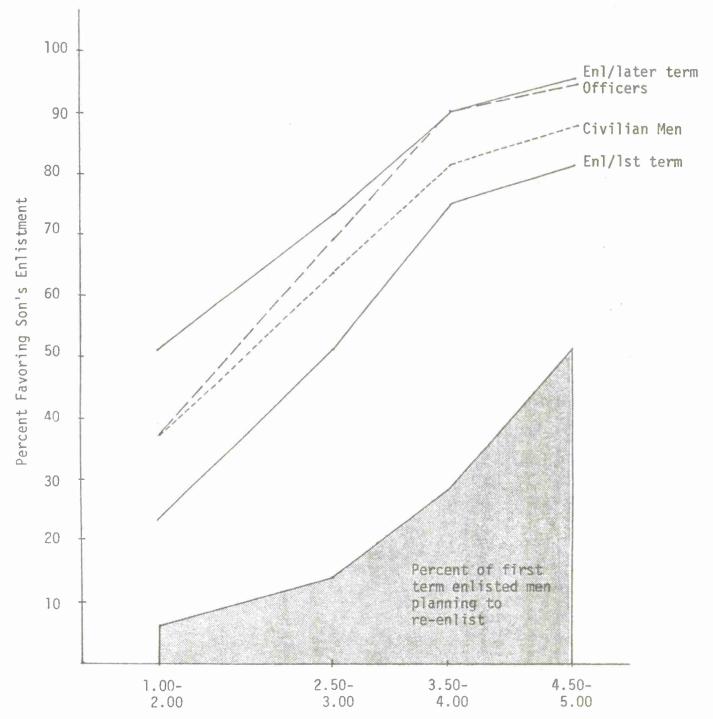
^{122 129 538 541}

Pro-Enlistment Views Related to Perceived
Military Job Opportunities



Perceived Military Job Opportunity

Pro-Enlistment Views Related to
Perceived Competence of Military Leaders



Perceived Competence of Military Leaders

FIGURE 28

Pro-Enlistment Views Related to Vietnam Dissent

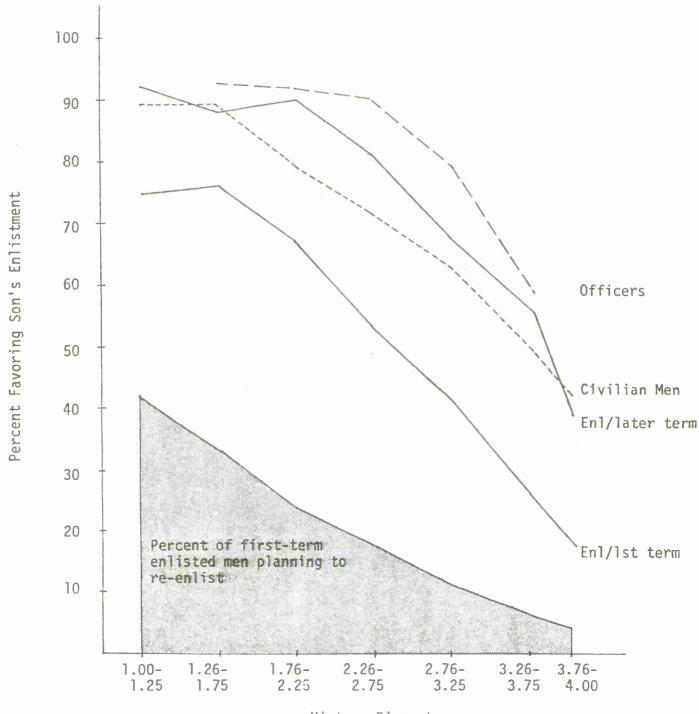
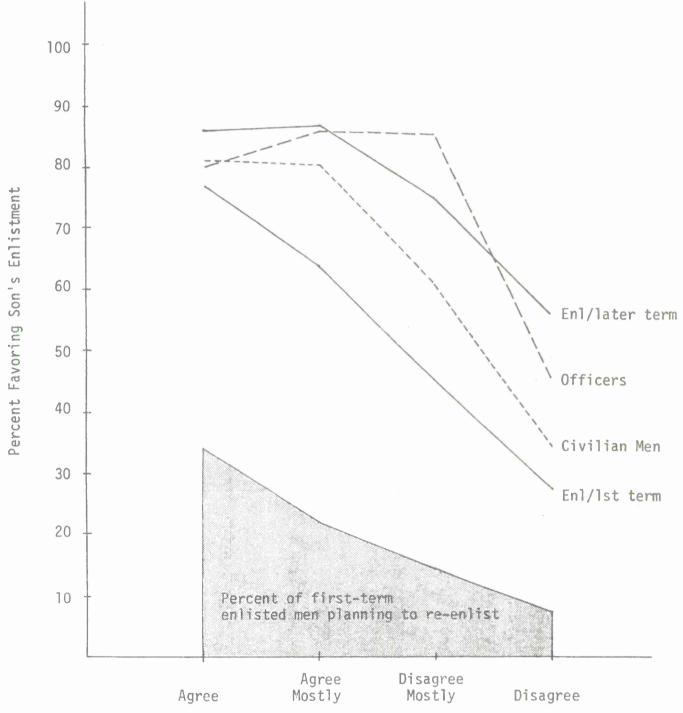


FIGURE 29
Pro-Enlistment Views Related to Views on Military Obedience



"Servicemen Should Obey Orders Without Question"

Viet Nam--the greater the dissent about Viet Nam, the more negative the feelings about enlistment. Support for a son's enlistment was also related to feelings about military obedience as indicated in Figure 29. Those who agreed with the statement that "Servicemen should obey orders without question" were more positive about a son's enlistment than those who disagreed with the statement; and first-termers who agreed with the idea of unquestioning obedience were much more likely to reenlist.

It is worth emphasizing that the correlations between military attitudes and views about a son's enlistment were also reflected in first-termers' expectations about their own reenlistment in the Navy. When we note also that questionnaire responses about reenlistment do show a strong relationship with actual reenlistment behaviors, this lends a further note of reality to our view that general attitudes about the military services and their mission do indeed have a bearing on enlistment behaviors.

Military Attitudes of Navy Men

We saw in the preceding section, especially in Table 9, that the correlations between certain military attitudes and views about enlistment were very similar for several groups of Navy men, and also for civilian men and women. But while the patterns of relationships between scores were similar among these groups, the average scores themselves showed substantial and rather important differences. Perhaps the strongest and most consistent finding was that later-term enlisted men in the Navy, as well as those first-termers who plan to reenlist, were almost always more

"pro-military" than any other group, Navy or civilian. These findings are summarized in Table 10 and some of them are also illustrated in Figure 30.

The data in the table and figure show, along nearly all dimensions, a striking correspondence between scores for later-term enlisted men in the Navy, and first-termers who planned to reenlist. First-termers not planning to reenlist, on the other hand, appeared much more similar to their civilian age-mates.

We have conducted further analyses in an effort to understand the more strongly pro-military attitudes of career enlisted men as first-termers who may be planning a Navy career. We considered two alternative explanations:

- During the first tour of duty, those individuals most likely to reenlist may undergo <u>attitude</u> changes in a more pro-military direction. This may occur through a process of socialization as a result of exposure to the more experienced Navy men who tend to hold such views, or through exposure to positive experiences in the Navy, or both.
- 2. By the time they reach their late teens, some individuals may be more favorable than others in their view of the military services and mission. These differences, which exist prior to enlistment, may be among the factors influencing the <u>self-selection process</u> involved in the decision to reenlist.

TABLE 10

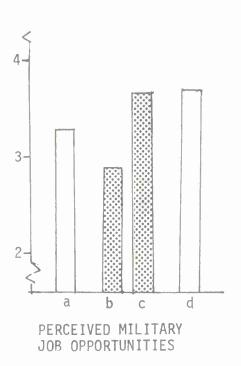
Contrasting Attitudes Among Navy and Civilian Groups

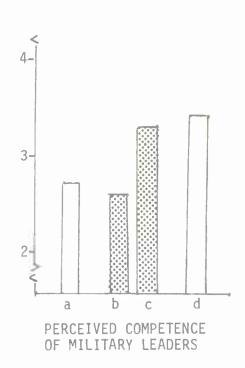
Mean Scores for:

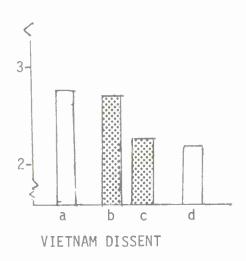
THE MILITARY WORK ROLE	Civilian Men Age 19-24	Enlisted Me Solution Planning P to Re-enlist to	term d Men Planning to Re-enlist	All Later-term Enlisted Men	Offi- cers (N=310)
Perceived Military Job Opportunities	3.30	2.92	3.70	3.70	3.64
Perceived Fair Treatment in Services	2.27	1.90	2.91	2.92	3.00
Perceived Discrimination Against Women and Blacks	2.64	2.37	2.31	2.24	`2.43
MILITARY LEADERSHIP					
Perceived Competence of Military Leaders	2.75	2.61	3.32	3.46	3.56
MILITARY INFLUENCE OVER NATIONAL POLICY					
Preference for Higher Military Spending and Influence	2.38	2.79	3.36	3.47	2.99
Role of Military in Society Perceived as Negative	2.64	2.48	2.10	2.16	2.18
Perceived Military (Versus Civilian) Influence	3.47	3.04	2.69	2.03	2.11
Preferred Military (Versus Civilian) Influence	2.91	3.25	3.72	3.68	3.04
Adequacy of Military Influence (Perc. Minus Pref.)	4.55	3.79	2.96	2.35	3.07
FOREIGN POLICY AND MILITARY POWER					
Support for Military Intervention	2.10	2.21	2.53	2.81	2.78
Preference for U.S. Military Supremacy	2.44	2.64	3.13	3.16	2.72
Vietnam Dissent	2.77	2.71	2.29	2.19	2.50
ISSUES INVOLVED IN AN ALL-VOLUNTEER FORCE					
Support for Amnesty	2.68	2.63	2.04	1.46	1.65
Opposition to Unquestioning Military Obedience	2.74	2.87	2.31	2.10	2.28
Opposition to Obedience in My Lai-type Incident	2.37	2.24	1.92	2.02	2.44
Preference for "Citizen Soldiers" (Vs. "Career Men")	2,67	2.68	2.43	2.12	2.19
Preference for Wide Range of Views Among Servicemen	2.97	2.77	2.80	2.75	3.13

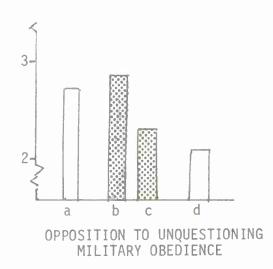
FIGURE 30

First-Term Enlisted Men Who Do and Do Not Plan to Re-Enlist Compared with Civilian Age-Mates and with Later-Term Enlisted Men









KEY: a = Civilian men age 19-24

b = First-term enlisted men not planning to re-enlist

c = First-term enlisted men planning to re-enlist

d = Later-term enlisted men

NOTE: Bar height reflects mean score (see Table 10 for exact values).

While the only really adequate test of these two competing explanations would involve a longitudinal design, we felt we could gain some insights by looking separately at first-termers who had served about one year, those who had served two years, and those who had served three or four years. If self-selection accounts for the differences between the attitudes of the career Navy men and others, there should be consistent differences in attitudes between those who did and did not plan on reenlistment—i.e., the differences for those in their first year should be just as large on the average as the differences found for those in their second, third or fourth years of service. On the other hand, if the attitude change explanation is correct, we <u>might</u> expect to see smaller differences among those in their first year—assuming that the process of attitude change requires more than a few months to be completed.

Our basic finding was that the differences between first-termers who planned to reenlist, and those who did not, were evident quite early. Those who had served about one year showed differences just as large on the average as those who had served several years longer. This finding is fully consistent with the self-selection explanation—the view that reenlistment is heavily influenced by rather deeply rooted perceptions and ideology related to the military life—style and mission. The alternative explanation, based on attitude changes during the first tour of duty, is not ruled out entirely. Indeed, both explanations could be true to some degree. But whatever the pattern of causation, our analyses in this area demonstrate that it does not require years and years of service experience for later—term enlisted men to develop the strongly pro-military attitudes found among later—termers. For those who planned to reenlist, the same attitudes were clearly evident as early as the first year of service (Bachman, 1974).

This section has documented a number of important ideological differences between career Navy men and their non-career or civilian counterparts. We think these differences may have important implications for the all-volunteer Navy of the future, and we return to these implications in the final section of this chapter.

Military Attitudes of Civilians

We noted earlier that one of the dimensions related to military attitudes among civilian men, in particular, was age. Young men in their early twenties seemed to be more critical of the military than did those in their late teens or those in their late twenties. In this section, we turn to two additional factors related to military attitudes among civilians, education and military experience.

Education. Attitudes about military service showed some relationship to educational levels for both civilian men and civilian women. As Table II indicates, level of education shows a moderate negative relationship with the number of pro-military dimensions. For example, more highly educated civilian men and women tended to rate military job opportunites and opportunites for fair treatment in the services relatively low, perceived military leaders as somewhat less competent, were less likely to prefer high levels of military spending and influence, saw less need for U.S. military supremacy over other nations, were more critical of past U.S. involvement in Viet Nam, and were more likely to raise questions about military obedience.

<u>Military experience</u>. We found that contacts with the services--both first-hand and second-hand--showed some impact on civilians' attitudes about the military. A comparison between veternas and non-veterans showed

 ${\tt TABLE\ 11}$ Correlations Between Educational Levels and Military Attitudes

	Product-Moment Correlation for:	
	Men (N=753)	Women (N=1053)
THE MILITARY WORK ROLE		
Perceived Military Job Opportunities	15	22
Perceived Fair Treatment in Services	22	23
Perceived Discrimination Against Women and Blacks	.14	.04
MILITARY LEADERSHIP		
Perceived Competence of Military Leaders	19	15
MILITARY INFLUENCE OVER NATIONAL POLICY		
Preference for Higher Military Spending and Influence	24	24
Role of Military in Society Perceived as Negative	.12	.09
Perceived Military (Versus Civilian) Influence	09	.03
Preferred Military (Versus Civilian) Influence	25	12
Adequacy of Military Influence (Perc. Minus Pref.)	.10	.10
FOREIGN POLICY AND MILITARY POWER		
Support for Military Intervention	.04	.08
Preference for U.S. Military Supremacy	26	18
Vietnam Dissent	.18	.12
ISSUES INVOLVED IN AN ALL-VOLUNTEER FORCE		
Support for Amnesty	.13	.06
Opposition to Unquestioning Military Obedience	.25	.18
Opposition to Obedience in My Lai-type Incident	.17	.15
Preference for "Citizen Soldiers" (Vs. "Career Men")	06	09
Preference for Wide Range of Views Among Servicemen	.18	.12

some tendency for veterans to have more positive military attitudes. One difference especially worth noting is that veterans tended to perceive the military as somewhat less influential than did non-veterans' scores in this respect were quite similar to scores for first-term enlisted men in the Navy. It may be that one of the more consistent results of past or present experience in military service is a lowered assessment of the amount of influence military leaders actually have over a range of decisions affecting national security.

When asked to rate their own feelings about having served in the military, most veterans chose the positive side of the scale. But there was some variation in such feelings, and the variation was correlated with our more general measures of attitudes about the military. Perhaps, in part, because of their own experiences in the military, those who were most positive about past experience were also most pro-military in their responses to other questions. In addition, those veterans who served more than four years were especially favorable in their attitudes toward the military—a finding that closely parallels our results for the Navy sample.

Only about half of the civilian men in our sample are veterans, but about 80% reported having at least one relative who had served in the armed forces. When asked to rate their relatives' feelings about having served, most used the positive side of the scale. Moreover, their perceptions of relative's satisfaction with the military showed a substantial relationship with more general attitudes about the armed forces—especially among those civilian men who had no first-hand experience in

the service. Veterans, of course, seemed to rely more heavily on their own experiences in forming broader views about the military. But for non-veterans--including those young men from whom these services must recruit their volunteers--the second-hand contact offered by relatives who served seemed to be an important factor in forming attitudes about the military.

STAFFING AN EFFECTIVE NAVY UNDER ALL-VOLUNTEER CONDITIONS: IMPLICATIONS FOR CHANGE

The Navy, unlike the Army, has historically relied entirely on volunteers. But during the past few decades the draft provided a powerful "incentive" for some to enlist in the Navy. Now, under all-volunteer conditions, the Navy and the other branches of military service must all compete in the civilian manpower market. The Navy must attract sufficient <u>numbers</u> of enlistees and reenlistees in order to function effectively. But more important than more quantity, the Navy must attract and retain the right <u>quality</u> of individuals—a broad enough range of abilities and perspectives to ensure that the Navy continues to adapt to new and changing conditions. Finally, the Navy must now, more than ever, deploy its manpower effectively—not simply because that manpower is more expensive and harder to recruit, but also because the effective and constructive utilization of manpower is in itself a key ingredient in attracting and retaining enough of the right kind of people in the Navy.

What Kinds of Recruits and How to Recruit Them?

The finding:

Career Navymen--and those most likely to become career men-tend to be more <u>sealous</u> about the military than their civilian
age-mates. This is one of the strongest and most consistent
findings in the section of the questionnaire dealing with military
views (Section C). There is much to indicate that these differences are due, at least in part, to processes of selection--the

more "pro-military" are likely to re-enlist in the Navy. These findings on re-enlistment, which held true for a Navy cross-section in late 1972, are more and more likely to apply to first enlistments, now that we are in an all-volunteer system.

How should Navy recruiting efforts respond to this finding that its enlistees and especially its career men are likely to come from only a limited ideological range? One approach is to embrace this state of affairs enthusiastically, recognizing that the more pro-military individuals are likely to be less troublesome and more in agreement with traditional military values and practices than some of their less gung ho contemporaries. Indeed, the idea of concentrating recruitment efforts on those most favorably disposed toward the military is one of the specific recommendations in a recent report to the Army that introduced the concept of the "quality man"—an individual who, among other things, says that he places high importance on patriotism, is proud of being an American, would be among the first to defend the country if it were attacked, and is generally more favorable toward military service (Opinion Research Corporation, 1974).

The approach of aiming recruitment efforts toward the more gung ho is understandably tempting to recruiters and perhaps to many others in the military. And it may appear to be successful in the short run. But in our view such a recruiting approach would be unwise in the long run. It would tend to reenforce and heighten the tendencies we have already observed for career Navy men to be less than fully representative of the cross-section of civilian viewpoints. By strengthening support for some unnecessary and perhaps counterproductive military

traditions and practices--or at least reducing resistance to them--this approach could gradually widen the gap between the Navy and the civilian world. We suspect that this gap would eventually reduce the supply of Navy recruits below an acceptable level. Such a gap would also reenforce concerns among some civilian leaders about the possible dangers of a "separate military ethos."

An alternative approach, and the one we recommend, is to develop recruitment efforts designed to obtain a broader and more fully representative cross-section of individuals among first-termers and also among career personnel in the Navy. Among the advantages of such an approach is that it tends to avoid the problems and pitfalls mentioned above. An additional advantage is that there is good reason to believe that by extending its recruiting efforts beyond the more gung ho, the Navy will be increasing the likelihood of attracting some of the brightest and most ambitious individuals. (Our findings in this study are that promilitary attitudes are somewhat negatively related to education, and findings in other studies of young people suggest that those who go to college are more likely to express critical views of the military in its present form. Thus an effort to increase recruiting among those presently more cautious about military service is likely to involve some of the most able of our young adults.)

How could the Navy go about implementing this approach of seeking a broader and more representative cross-section in its recruits? Two types of strategy may be distinguished, and we recommend both. First, the extrinsic incentives to enlistment—those rewards or inducements which are not directly linked to actual performance in the work role—should be geared toward a broader cross-section of individuals,

especially those who have relatively high educational abilities and interests. We will say more about this approach in a moment. The second strategy is to modify intrinsic characteristics of Navy work roles so as to make them more broadly attractive. Later sections will offer a number of specific recommendations for improving Navy work roles and effectiveness.

Extrinsic Incentives to Enlistment

The research project which is the basis for this report was not focused on types of incentives that could be used to encourage enlistment, so our discussion in this area will be brief and based on other studies.

Probably the most obvious extrinsic incentive that comes to mind when considering any work role--military or civilian--is pay. The higher the level of pay, the more attractive the work role is assumed to be. Certainly in discussions about the feasibility of converting to an all-volunteer force, primary attention was directed to increasing military salaries--efforts were made to estimate how much money would be required to induce enough men to enlist under volunteer conditions (U.S. President's Commission on an All-Volunteer Armed Force, 1970). The recent pay increases were surely a necessary condition to the establishment of an all-volunteer military force, but in our view the higher salaries do not constitute sufficient conditions--and in some respects the emphasis on pay increases may have led us to overlook other important incentives to military service.

One set of incentives which are worth greater attention and emphasis are the educational benefits available to servicemen during and after their tour of duty. Although the young men (and women) bound for college represent a group especially high in ability and ambition, military

recruiting policy has to a large degree treated them as unlikely prospects (Binkin and Johnston, 1973). And in its recent report to the Army, the Opinion Research Corporation (1974, p. viii) advised that "While college students do not express strong opposition any longer to the military as an institution, enlistment still does not appeal to them. Noncollege men remain the Army's major market." But in that same report it is noted that educators rate "interference with education" as a primary deterrent to military service, and feel that this drawback could be offset by greater emphasis on the GI Bill as a source of support for a college education. Some of our own research and writing has also stressed the value of increased emphasis on educational benefits as an important means of maintaining a broader balance in both ability and ideology among military recruits (Bachman, 1972; Johnston and Bachman, 1971).

In sum, under present conditions the typical high school student planning for college tends to view military service as an unwise interruption of his educational development. Given no change in present conditions—or, worse yet, given a reduction in educational benefits for veterans—it is probably accurate to conclude that noncollege men remain the primary manpower source for all branches of service, including the Navy. But we think it would be unwise to leave present conditions as they are. On the contrary, we recommend that the educational benefits available to servicemen and veterans be retained and enhanced, and that these benefits be publicized more widely. In particular, we would suggest that recruiters develop specific "pay your way through college plans" that stress the opportunity to qualify for veterans' benefits,

amass substantial savings, and accumulate some college credicts during a tour of Navy service following high school.*

But why should the Navy seek out individuals who are likely to serve only one term and then go on to college as civilians? Why should it deliberately seek out those who have a low likelihood of reenlistment? Some of the advantages in terms of high ability levels and broader perspectives have been noted above, and these help to balance out the higher turnover rate likely among those who enter the Navy in order to work their way through college. But it should be added that a considerable degree of turnover is necessary and desirable in an organization that has only limited positions of leadership at the top. The "college in exchange for service" formula is a means of attracting able individuals who can learn quickly, serve effectively, and then leave to make room for other fresh recruits. Moreover, the high rates of turnover among this group of individuals would not be a sign of organizational failure, and those who left would not be spending their final years of service frustrated and disillusioned because the Navy had not lived up to their expectations. We agree with Friedman (1967) that some proportion of "in-and-outers" is

We recognize, of course, that the retention of present educational benefits for veterans--not to mention any expansion of them--is a matter largely outside the hands of the Navy. Nevertheless, we think it essential that Navy leaders recognize and emphasize the importance and potential of these educational benefits when such matters are discussed by civilian leaders.

In the meantime, present levels of veterans' benefits coupled with the new higher military salaries make it possible in large measure for a high school graduate to pay his way through college by serving a tour in the Navy. These opportunities can and should be stressed by recruiters.

desirable in the military services, and we view the use of educational incentives as a particularly effective means for ensuring this sort of turnover.

But not all those who enter the Navy with the idea of working their way through college are likely to be permanently lost after their first tour of duty. Some who might otherwise never have been exposed to the Navy will find that it offers career possibilities that fit in well with their interests and abilities. Of course, the capacity to attract such individuals on the basis of their first-hand exposure depends in large measure upon the intrinsic characteristics of work roles in the Navy. In our view, these intrinsic characteristics are intimately connected with the Navy's effective utilization of its manpower, a topic which we now consider at some length.

Action Implications: Organizing for Effective Manpower Utilization

I. Recognizing the Relationship of Social and Technical Systems in the Navy

The finding: There is a philosophy-of-management problem which permeates the Navy. It shows up in a rather pervasive (top-to-bottom) perception of the organizational climate as negative in its view of human resources and in motivational conditions.

Perhaps the issue can be illustrated by contrasting two polar opposites. The Navy is not, nor can it be, an organization in which personnel are all-important and hardware ancillary. Weapons systems change, perhaps more in response to the weapons systems changes of other nations than in relation to changes in mission. Such changes have important repercussions for the human beings who use and man them.

Similarly, the Navy is not, nor can it be, simply a large store-house of equipment which unfortunately requires people to move it about and maintain it. Yet the expression, often heard in Navy circles, that "the hardware drives the system" seems to indicate that something of this nature is in fact assumed.

There is a body of empirical knowledge upon which the Navy might profitably draw. Variously generated, in the U.S. and elsewhere, it carries the label "socio-technical systems fit," and is represented by the work of Davis, Trist, Cherns, and others. As an action implication:

A. The Navy should undertake to study its ships and shore stations as socio-technical (not just technical) system, and should attempt modifications in line with the resulting findings, perhaps initially on an experimental basis.

- (1) The human resource aspects of management must be brought, for lower-rank, younger Navymen, to a level of competence and custom similar to that which obtains in the civilian world for persons in analogous positions and more nearly like that which is presently found among more senior Navymen. The Navy's Human Goals effort has made a start in this direction, particularly in its organizational development aspects. This effort, and others like it, should be supported, extended, and strengthened.
- (2) The ability to solve problems for a Navyman should accompany any assigned responsibility to do so. Changes in approval procedures and policies might, for example, be considered. Although one customarily thinks of delegated approval authority as encompassing the authority to disapprove as well as to approve, bureaucratic organizations often in practice separate these two. This assumes the form of, in fact, delegating the right to disapprove, but requiring that approvals be granted only by higher echelons. The result is similar in form to the response of many Navymen to one of the items in our survey's bureaucracy index: they are referred endlessly from person to person when in need of help.

In at least one instance, a constructive solution to this problem is proposed in the form of delegating the authority to deny a request to a level no lower than the authority to approve (Siepert & Likert, 1973).

II. Coping with Bureaucracy

The finding: Although Navymen and civilians attach approximately the same levels of importance to the ability to live one's life reasonably free from bureaucratic constraints, only civilians experience what could be termed an acceptable or satisfactory degree of it. Young Navymen, furthermore, whether officer or enlisted, report an importance-experience gap of very large proportion.

Over the years, the Navy has no doubt attempted with considerable effort to cope with the burgeoning requirements of a complex society. Since the demands placed upon it tend to be centrally felt, the mechanisms for compliance tend to have been centrally exercised, in the form of bureaucratic control mechanisms. While, for the common sailor, much has been removed from the domain of arbitrary personal treatment, its place has apparently been taken by arbitrary impersonal treatment. Rules and regulations, complex and in some instances confusing, have been uttered, extended, revised, and qualified, seemingly to the point that superiors often are unable to explain either their nature or their rationale.

Navymen therefore feel hamstrung--unable to exhibit other than inaction in response to the problems and inquiries of other Navymen. A number of possible action steps might be considered:

A. Decentralize: return to command the overall responsibility for direction that over the years has been absorbed into central staff control functions.

Several aspects of this must be considered, if arbitrary impersonal treatment is not simply to revert to arbitrary personal treatment.

Perhaps for those aspects of Navy life which most closely touch the person, his well-being, and his independence, something of this order might be attempted.

B. Flatten the organizational structure: remove a large proportion of the one-on-one reporting relationships so frequently found in the Navy.

The Navy, not unlike many other large organizations, appears to be too "tall." Too many instances occur in which one person supervises only one, or perhaps two, subordinates. While, particularly at more senior levels, the felt need to share a staggering work load with a principal assistant is very real, the need to do so perhaps often originates in the assuming upward of too many tasks. Thus, one man watches a second who in turn watches a third who actually performs the task. "Multiple-layered surveillance" of this type is truly essential in those instances in which the ultimate performer has been assigned a task for which he is not competent, and in those instances in which he has been compelled to perform a task toward which he feels neither commitment nor motivation. However, a competent, motivated, committed subordinate needs no such surveillance; he need only know the objective, the conditions, and the timetable. Perhaps much of the perception of bureaucracy might be alleviated by enlarging the responsibilities of lower echelons and--in the process--eliminating whole tiers of largely superfluous, intermediate supervision. This might alleviate as well a problem reported by a number of

more junior Navymen: that, while they have ample opportunity to learn <u>new</u> skills, they often lack opportunity to use the skills they so acquire.

C. Make more constructive use of "management by objectives."

In many instances, civilian organizations, and large government agencies as well, have sought in recent years to make their operations more rational and motivating by a system of joint goal-setting knon as, "management by objectives." While many such efforts have attained less than the outcomes promised--probably because they have inadvertently become a superficial process of top-down assignment of targets, a number of organizations report having benefitted from a carefully conceived, mutually involving process of this type. Such an effort might substantially help the Navy, particularly as it serves to complement the other possible action steps just described (decentralization and flattening the structure).

III. Reducing the Effects of Age (and Values) Discrepancy

The finding: Belief in autocratic (domineering) supervisory practices rises with age. Perhaps the greatest gap is that between the youngest enlisted men (mostly first-termers) and the older enlisted men who for the most part supervise them.

The Navy is an organization that employs (compared to civilian organizations) very young adults in disproportionately large numbers.

On certain of the values issues, older inlisted men--who provide much of the supervision of these young men--appear to be distinctly incongruent

from the views, interests, needs, and perspectives of their younger subordinates. Yet young officers, by way of contrast, appear to be quite compatible with young enlisted men. Although in many instances these young officers are seen as lacking the necessary technical competence, were they to have it and <u>directly</u> supervise the young enlisteds, the situation might be considerably better. Several alternative action steps might be considered:

- A. <u>Improve the task leadership and technical competences of junior</u> officers.
- B. Replace senior enlisteds with junior officers in roles which involve supervising younger enlisted men.

Admittedly, the proposal is a drastic one. Yet the situation of the junior officer has long been troublesome (e.g., the young Ensign "supervising" the grizzled Chief), and to this now must be added the potential for real conflict between young enlisted men and those same older enlisteds.

C. Take age discrepancy into account in the assignment process.

Perhaps, as an alternative, the age discrepancy between a supervisor and his potential subordinates ought be taken formally into account (and reduced) in the assignment process. While this might be complicated and cumbersome, it might be more acceptable than the preceding action step.

D. Improve the general leadership competences of Petty Officers other than Chiefs.

IV. Increasing Opportunites for Independence in One's Personal Life

The finding: As in the case of bureaucracy, although Navymen and

civilians attach approximately the same levels of importance to

personal freedom and independence (the ability to live the personal

aspects of one's live reasonably free from external constraints),

only civilians experience what could be termed an acceptable or

satisfactory degree of them. The importance-experience gap, further
more, attains very large proportions for young Navymen.

Many conditions undoubtedly contribute to this perception by young Navymen that they lack the desired latitude in controlling their personal lives. Only some of these conditions may be directly handled; others may not, or may be handled only indirectly. An instance of the latter may be habitability aboard ship. Only as ways are found to automate or eliminate functions and their currently required billets may some of the congestion be eliminated. Only then may a greater degree of privacy, personal space, and security of possessions be possible.

Others are more amenable to immediate action, however. Dress and hair restrictions may well represent a case in point. Where safety or operating effectiveness require certain practices which may be viewed by inexperienced personnel as intrusive, effort should of course be expended in explaining the reasons for the restrictions. However, in many instances the restrictions may be purely arbitrary, representing the personal aversions of senior personnel or influential civilians in the area. While the effect of the restrictions may be personally pleasing to the initiator, they apparently do the Navy unnecessary harm by contributing to low retention rates (and therefore higher costs).

Dress and hair restrictions are but examples (and not necessarily the most appropriate ones). Other intrusions undoubtedly occur into the personal lives of Navymen. The following are possible action steps that might be considered:

- A. Review Navy policies and procedures which potentially provide grounds for unnecessary intrusion into the personal lives of Navymen and alter those which do so.
- B. Write and issue something akin to a "Navyman's Bill of Rights,"
 which specifies the personal life areas and circumstances in
 which subordinate commanders may and may not intervene.
- C. Add to the assignment procedures improved mechanisms for taking into account the personal needs and interests of Navymen. While relevant to all, this would appear to be most critical for young officers, whose loss to the service is quite costly.

References

- Andrews, F.M., Morgan, J.N. and Sonquist, J.A. <u>Multiple classification</u>
 <u>analysis</u>. Ann Arbor: Survey Research Center, Institute for
 <u>Social Research</u>, 1967.
- Bachman, J.G. <u>Values, preferences and perceptions concerning military</u> <u>service</u>. Ann Arbor, Mich.: Survey Research Center, Institute for Social Research, 1973.
- Bachman, J.G. <u>Values, preferences and perceptions concerning military</u> <u>service: Part II.</u> Ann Arbor, Mich.: Survey Research Center, <u>Institute for Social Research</u>, 1974.
- Bachman, J.G. and Johnston, J. The all-volunteer armed force, not whether but what kind. <u>Psychology Today</u>, 1972, October 6, (5), 113-116,128.
- Binkin, M. and Johnston, J.D. All-volunteer armed forces: progress, problems, and prospects. Report prepared for the Committee on Armed Services, United States Senate, Ninety-Third Congress, First Session, Washington: U.S. Government Printing Office, 1973.
- Bowers, D.G. and Franklin, J.L. <u>The Navy as a functioning organization:</u> a diagnosis. Ann Arbor, Mich.: Institute for Social Research, 1973.
- Davis, L.E. and Taylor, J.C. (eds.) Design of jobs, Penguin Books.
- Franklin, J.L. A path analytic approach to describing causal relationships among social-psychological variables in multi-level organizations. Ann Arbor, Mich.: Institute for Social Research, 1973.
- Friedman, M. Why not a volunteer army? In S. Tax (ed.) The draft:

 a handbook of facts and alternatives. Chicago: The University
 of Chicago Press, 1967.
- Johnston, J. and Bachman, J.G. <u>Youth in transition, volume V: young</u> <u>men and military service</u>. Ann Arbor, Mich.: Survey Research Center, Institute for Social Research, 1972.
- Kelman, H.C. and Lawrence, L.H. Assignment of responsibility in the case of Lt. Calley: Preliminary report on a national survey.

 Journal of Social Issues, 1972, 28 (1), 177-212.
- Land, K.C. Principles of path analysis. In E.F. Borgatta (ed.), Sociological Methodology, 1969. San Francisco: Jossey-Bass Inc., 1969, 3-37

- Legislative Reference Service, Library of Congress. How can the United States best maintain manpower for an effective defense system?

 Washington, D.C.: U. S. Government Printing Office, 1978.
- Likert, R. and Bowers, D.G. Organizational theory and human resource accounting. American Psychologist, 1969, 24, 585-592.
- Likert, R. and Bowers, D.G. Improving the accuracy of P/L reports by estimating the change in dollar value of the human organization.

 Michigan Business Review, 1973, 25 (2), 15-24.
- Likert, R. New patterns of management. New York: McGraw-Hill, 1961.
- Likert, R. The human organization. New York: McGraw-Hill, 1967.
- Opinion Research Corporation. Conducted for N.W. Ayer and Sons, Inc., and the U.S. Army. Attitudes and motivations toward enlistment in the U.S. Army. Princeton, New Jersey: Opinion Research Corporation, 1974.
- Siepert, A.F. and Likert, R. The organizational climate for successful innovation. <u>Public Management</u>, 1973.
- Taylor, J.C. and Bowers, D.G. <u>Survey of organizations: a machine-scored standardized questionnaire instrument</u>. Ann Arbor: Institute for Social Research, 1972.
- U.S. President's Commission on an All-Volunteer Armed Force. The report of the president's commission on an all-volunteer armed force. Washington: U.S. Government Printing Office, 1970.

Distribution List

Dr. John A. Nagay Director Office of Naval Research (3 copies) (Code 452) 800 N. Quincy St. Arlington, VA 22217

å

Director
U.S. Naval Research Laboratory (6 copies)
ATTN: Technical Information Division
Washington, DC 20390

Defense Documentation Center (12 copies) Building 5 Cameron Station Alexandria, VA 22314

Library, Code 2029 (6 copies) U.S. Naval Research Laboratory Washington, DC 20390

Science & Technology Division Library of Congress Washington, DC 20540

Director ONR Branch Office 495 Summer St. Boston, MA 02210

Psychologist ONR Branch Office 495 Summer St. Boston, MA 02210

Director
ONR Branch Office
536 S. Clark St.
Chicago, ILL. 60605

Director ONR Branch Office 1030 E. Green St. Pasadena, CA 91106

Psychologist ONR Branch Office 1030 E. Green St. Pasadena, CA 91106 Research Psychologist ONR Branch Office 536 S. Clark St. Chicago, Ill. 60605

Director (3 copies)
Program Management
ARPA, Room 813
1400 Wilson Blvd.
Arlington, VA 22209

Director OSD-ARPA R&S Field Unit APO San Francisco 96243

Director Human Resources Research Office ARPA, Room 625 1400 Wilson Blvd. Arlington, VA 22209

Dr. Richard E. Sykes Minnesota Systems Research, Inc. 2412 University Ave., S.E. Minneapolis, MN 55414

Dr. Karlene H. Roberts School of Business Administration University of California Berkeley, CA 94720

Dr. Barry Blechman The Brookings Institution 1775 Massachusetts Ave., N.W. Washington, DC 20036

Dr. Moshe F. Rubinstein University of California 405 Hilgard Ave. Los Angeles, CA 90024

PRINCIPAL INVESTIGATORS

Dr. Alvin J. Abrams Navy Personnel R&D Center San Diego, CA 92152

Dr. Clayton P. Alderfer Department of Administrative Sciences Yale University New Haven, CT 06520

Dr. S. J. Andriole University of Maryland College Park, MD 20742

Dr. James A. Bayton Department of Psychology Howard University Washington, DC 20001

Dr. Carl Bennett Battelle Memorial Institute 4000 N.E. 41 St. Seattle, WA 98105

Dr. H. Russell Bernard Dept. of Sociology & Anthropology West Virginia University Morgantown, WV 26506

Dr. Milton R. Blood Department of Psychology University of California Berkeley, CA 94720

Dr. David G. Bowers Institute for Social Research University of Michigan Ann Arbor, MI 48106

Dr. Carl H. Castore Department of Psychology Purdue University Lafayette, IN 47907

Dr. Charles A. Dailey McBer & Company 675 Massachusetts Ave. Cembridge, MA 92139 Dr. Robyn M. Dawes Oregon Research Institute 488 E. 11 Ave. Eugene, OR 97403

Dr. Fred E. Fiedler Department of Psychology University of Washington Seattle, WA 98105

Dr. Allan H. Fisher, Jr. Hay Associates 1625 Eye St., N.W. Suite 1001 Washington, DC 20006

Dr. Samuel L. Gaertner Department of Psychology University of Delaware 220 Wolf Hall Newark, DE 19711

Dr. Gloria L. Grace System Development Corporation 2500 Colorado Ave. Santa Monica, CA 90406

Dr. Eric Gunderson Code 8030 Navy Medical Neuropsychiatric Research Unit San Diego, CA 92152

Dr. J. Richard Hackman
Department of Administrative Sciences
Yale University
New Haven, CT 06520

Dr. Thomas W. Harrell Graduate School of Business Stanford University Stanford, CA 94305

Dr. Charles F. Hermann Ohio State University Research Foundation 1314 Kinnear Rd. Columbus, OH 43212

Dr. Norman J. Johnson School of Urban & Public Affairs Carnegie-Mellon University Pittsburgh, PA 15213 Dr. Paul F. Lazarsfeld Bureau of Applied Social Research Columbia University 605 West 115 St. New York, NY 10025

Dr. Charles A. McClelland School of International Relations University of Southern California University Park Los Angeles, CA 90007

Dr. Elliott M. McGinnies Psychology Department American University Washington, DC 20016

Dr. Terence R. Mitchell School of Business Administration University of Washington Seattle, WA 98195

Dr. Peter R. Monge
Department of Speech-Communication
California State University
San Jose, CA 95192

Dr. Stanley M. Nealey
Battelle Memorial Institute
4000 N.E. 41 St.
Seattle, WA 98105

Dr. Herbert R. Northrup Industrial Research Unit University of Pennsylvania Philadelphia, PA 19104

Dr. Benson E. Penick Carnegie-Mellon University Margaret Morrison 410 Pittsburgh, PA 15213

Dr. Diane M. Ramsey-Klee R-K Research and System Design 3947 Ridgemont Dr. Malibu, CA 90265

Dr. Rudolph J. Rummel
Political Science Department
University of Hawaii
Honolulu, HI 96822

Dr. Edgar H. Schein Sloan School of Management Massachusetts Institute of Technology Cambridge, MA 02139

Dr. Saul B. Sells Texas Christian University Fort Worth, TX 76129

Dr. Siegfried Streufert Department of Psychology Purdue University Lafayette, IN 47907

Dr. Lorand B. Szalay American Institutes for Research Kensington Office 10605 Concord St. Kensington, MD 20795

Dr. H. H. Vreeland III Human Sciences Research, Inc. Westgate Research Park 7710 Old Springhouse Rd. McLean, VA 22101

Dr. Victor H. Vroom School of Organization & Management Yale University 56 Hillhouse Ave. New Haven, CT 06520

Dr. J. Wilkenfeld University of Maryland College Park, MD 20742

Dr. Harry E. Wilkinson University Affiliates, Inc. 100 Draper Rd. Wayland, MA 01778

Dr. Clark L. Wilson Graduate School of Business Administration University of Bridgeport Bridgeport, CT 06602

Dr. Philip G. Zimbardo Department of Psychology Stanford University Stanford, CA 94305

Air Force

Military Assistant for Human Resources OAD(E&LS) ODDR&E Pentagon 3D129 Washington, DC 20301

HQ, USAF AFMPC/DPMYAR Randolph AFB, TX 78148

Environmental & Life Sciences Division HQ, AFSC/DLSE Andrews AFB, MD 20334

AFOSR (NL) 1400 Wilson Blvd. Arlington, VA 22209

Air University Library/LSE-8110 Maxwell AFB, AL 36112

Lt.Col. R. B. Tebbs DFLS USAF Academy, CO 80840 ARMY

DAPE-PBR Research Office Washington, DC 20310

Office of the Deputy Chief of Staff For Personnel, Research Office ATTN: DAPE-PBR Washington, DC 20310

Chief, Plans & Operations Office USA Research Institute for the Behavioral & Social Sciences Room 278 1300 Wilson Blvd. Arlington, VA 22209

Army Research Institute (2 copies)
Commonwealth Bldg.
1300 Wilson Blvd.
Rosslyn, VA 22209

Coast Guard

Chief, Psychological Research Branch U. S. Coast Guard (G-P-1/62) 400 7th St., S. W. Washington, DC 20590

Marine Corps

Dr. A. L. Slafkosky Scientific Advisor Commandant of the Marine Corps (Code RD-1) Washington, DC 20380

Commandant of the Marine Corps (Code MPI-20) Washington, DC 20380

Navy

Chief of Naval Personnel Assistant for Research Liaison (Pers-Or) Washington, DC 20370

Bureau of Naval Personnel (Pers-6) Assistant Chief of Naval Personnel for Human Goals Washington, DC 20370

Bureau of Naval Personnel (Pers-6a3) Navy Human Goals Financial Office Washington, DC 20370

Cdr. Paul D. Nelson, MSC, USN Head, Human Performance Division (Code 44) Navy Medical R&D Command Bethesda, MD 20014

Bureau of Medicine & Surgery Clinical Psychology Section (Code 3131) Washington, DC 20372

LCdr. C. A. Patin, U.S.N. Director, Human Goals Department Code 70, Naval Training Center Orlando, FL 32813

Commander, Naval Air Systems Command AIR-4133 Washington, DC 20360 Navy (Cont'd)
Office of Civilian Manpower Management
Personnel Management Evaluation Branch (72)
Washington, DC 20390

Assistant Officer in Charge Naval Internal Relations Activity Pentagon, Room 2E329 Washington, DC 20350

Navy Recruiting Command (6 copies)
Code 20
4015 Wilson Blvd.
Arlington, VA 22203

Naval Postgraduate School Monterey, CA 93940 ATTN: Library (Code 2124)

Professor John Senger Operations Research & Administration Sciences Naval Postgraduate School Monterrey, CA 93940

LCdr. Robert S. Kennedy, U.S.N.

Head, Human Factors Engineering Branch (N342)

Nas Memphis (75)

Naval Missile Center, Pt. Mugu, CA 93042

Chief, Naval Technology

NAS Memphis (75)

Millington, TN 38

Training Officer Human Resource Management Center NTC, San Diego, CA 92133

Scientific Director Naval Health Research Center San Diego, CA 92152

Navy Personnel R&D Center (5 copies) Code 10 San Diego, CA 92152

Officer in Charge Naval Submarine Medical Research Lab. Naval Submarine Base New London, Box 900 Groton, CT 06340

Commanding Officer Naval Training Equipment Center Technical Library Orlando, FL 32813 Officer in Charge (Code L5)
Naval Aerospace Medical Research Lab.
Naval Aerospace Medical Center
Pensacola, FL 32512

Capt. Bruce G. Stone, U.S.N. (Code N-33)
Director, Education & Training Research
and Program Development
Chief of Naval Education and Training Staff
Naval Air Station, Pensacola, FL 32508

Dr. H. H. Wolff Technical Director (Code N-2) Naval Training Equipment Center Orlando, FL 32813

Lt. Rebecca G. Vinson, U.S.N.
Navy Recruiting District, Boston
575 Technology Square
Cambridge, MA 02139

Human Resource Management Center Attachment Naval Support Activity c/o FPO New York, NY 09521 ATTN: TDC Nelson

Chief, Naval Technical Training NAS Memphis (75) Millington, TN 38128 ATTN: LCdr. R. R. Gaffey, Jr., N452

OTHER

HumRRO (ATTN: Library) 300 N. Washington St. Alexandria, VA 22314

Director of Research HumRRO Division #4 (Infantry) P. O. Box 2086 Fort Benning, GA 31905

Journal Supplement Abstract Service APA 1200 17th St., N.W. Washington, DC 20036

Division Director for Social Science National Science Foundation 1800 G St., N.W. Washington, DC 20550 Office of the Air Attache Embassy of Australia 1601 Massachusetts Ave., N.W. Washington, DC 20036

Scientific Information Officer British Embassy 3100 Massachusetts Ave., N.W. Washington, DC 20008

Attn: Chief, Defence Research Canadian Defence Liaison Staff, Washington 2450 Massachusetts Ave., N.W. Washington, DC 20008

Dr. Lennart Levi Director Lab. for Clinical Stress Research S-104 01 Stockholm, SWEDEN

Mr. Luigi Petrullo 2431 N. Edgewood St. Arlington, VA 22207

Dr. John J. Collins 9521 Cable Dr. Kensington, MD 20795

Mr. Joel Ellermeier Bureau of Training, CSC Room 7626 1900 E St., N.W. Washington, DC 20415

Professor G. L. Stansbury Florida Southern College Lakeland, FL 33802

Pat-Anthony Federico Code 32 Navy Personnel R&D Center San Diego, CA 92152

Mr. Ross R. Vickers, Jr. Code 32 Navy Personnel R&D Center San Diego, CA 92152

Dr. Norman M. Abrahams Navy Personnel R&D Center San Diego, CA 92152 Deputy Chief of Naval Operations for Manpower (OP-01) Room 2072 Arlington Annex Washington, DC 20370

Assistant Chief of Naval Personnel Personnel, Planning & Programming (Pers-2) Bureau of Naval Personnel Washington, DC 20370

Chief of Naval Operations ADCNO Manpower Planning and Programming (IOP-01C) Washington, DC 20370

Bureau of Naval Personnel Division Director for Evaluation and Research IPers-65) Washington, DC 20370

LCDR U1 James HRM Detachment Naval Air Station Jacksonville, F1.

CDR. Sig B. Pawley HRMC 5621 Tidewater Drive Norfolk, VA 23509

LTJG. Cort Hooper HRMC Bldg. 304 Naval Training Center San Diego, CA. 92133

LCDR. John Bloomer HRMC Pearl Harbor Naval Center FPO San Francisco, CA 96601

CDR. Howard Ewy HRMC Bureau of Naval Research Washington, DC 20370 Asst. Secretary of the Navy (Manpower & Reserve Affairs) Pentagon, Rm. 4E788 Washington, DC 20350

Director Prog. Planning Office (OP-090) Pentagon, Rm. 4E620 Washington, DC 20350

Bureau of Naval Personnel Special Asst. to Chief of Naval Personnel (Pers-Oe) Washington, DC 20370

Director of Manpower Research Office of the Secretary of Defense Pentagon, Rm. 3D960 Washington, DC 20350

Asst. Director for Environment and Life Sciences Office of the Director of Defense Research & Engineering Pentagon, Rm. 3D129 Washington, DC 20350

Attn: MAJ. John Johnston HQ, USAF Code AF DPXYA Pentagon, Rm. 50360 Washington, DC 20350

Special Asst. for All Volunteer Force Action Office of the Asst. Secretary of Defense (Manpower & Reserve Affairs) Pentagon, Rm. 2C270 Washington, DC 20350

Research Study Director A & I 3101 Smithsonian Institution Washington, DC 20560

LCOL Charles R. Sterrett HQS, Air Force Systems Command/IGK Andrews Air Force Base Washington, DC 20334 Mr. S. D. Cramer, Jr. Deputy Director for Plans Defense Intelligence Agency Washington, DC 20301

Mr. J. Ellermeier Bureau of Training, CSC Rm. 7626 1900 E. St., N.W. Washington, DC 20415

Chief of Naval Operations
Manpower Analysis & Systems
Development Branch (OP-121)
Washington, DC 20370

Asst. to the Asst. Deputy Chief of Naval Operations (Manpower) (OP-01CZ2) Room 2633 Arlington Annex Washington, DC 20370

Bureau of Naval Personnel Head, Program Development Branch (Pers-226) Washington, DC 20370

Deputy Asst. Secretary Manpower Research & Utilization Pentagon, Rm. 3D962 Washington, DC 20350

Office of the Special Asst. for the Modern Volunteer Army Pentagon, Rm. 3C639 Washington, DC. 20350

Office of Asst. Secretary (M&RA) Chief, Manpower Pentagon, Rm. 2E589 Washington, DC 20350

Mr. George N. Graine
Naval Ship Systems Command
(SHIPS 03H)
Department of the Navy
Washington, DC 20360

Bureau of Naval Personnel Special Asst. for Enlisted Force Analysis (Pers-2x) Washington, DC 20370 Behavioral Sciences Div.
Office of Chief of Research
and Development
Department of the Army
Washington, D.C. 20310

Dr. Barry M. Feinberg
Bureau of Social Science Research, Inc.
1990 M. St., W.
Washington, D.C. 20036

Dr. Henry Solomon
George Washington University
Department of Economics
Washington, D.C. 20006

Assistant for Personnel Logistics (Op 98 TL)
Pentagon, 48489
Washington, D.C. 20350

Director Naval Research Laboratory Code 2627 Washington, D.C. 20390

Headquarters
UASF, Chief Personnel Research and
Analysis Division (AF/DPXY)
Washington, D.C. 20330

Chief
Bureau of Medicine and Surgery
Code 513
Washington, D.C. 20390

Chief
Bureau of Medicine and Surgery
Research Division (Code 713)
Department of the Navy
Washington, D.C. 20390

Technical Director
Naval Personnel Research and
Development Lab
Washington Navy Yard
Bldg. 200
Washington, D.C. 20374

Head of Manpower Trg. & Reserve Grp. (Op-964D) Rm. 4A538, Pentagon Washington, D.C. 20350 Director Advertising Dept. Navy Recruiting Command Washington Navy Yard, BG157 Washington, D.C. 20390

Director
Systems Analysis Div. (Op-96)
Pentagon, 4A526
Washington, D.C. 20350

Head, Support Forces Manpower and Logistics Branch 10p-964 Pentagon, 4A538 Washington, D.C. 20350

Deputy Dir., Prog. Mgmt. Ofc. Naval Material Command (03PB) Rm. 868, Crystal Plaza #6 2221 Jefferson Davis Highway Arlington, VA 20360

Mr. David Segal U.S. Army Research Institute 1300 Wilson Blvd. Arlington, VA 22209

Director, Human Resources Research (ARPA) 713 Architect Bldg. 1400 Wilson BLD Arlington, VA 22209

Deputy and Chief Scientist (Code 102) Office of Naval Research Arlington, VA 22217

Manager, Program in Manpower R&D (Code 450) Office of Naval Research Arlington, VA 22217

Director
Naval Applications and Analysis Div (Code 40
Office of Naval Research
Arlington, VA 22217

Prog. Administrator, Personnel and Trg. Station, Naval Material Command (93424) 820 Crystal Plaza #6 2221 Jefferson Davis Highway Arlington, VA 20360 Head
Manpower Planning/Programming
and Budgeting Branch, USMC
Arlington Annex, 4108
Arlington, VA 20380

Head
Manpower Mgmt. Information
Systems Branch, USMC
Arlington Annex, 1436
Arlington, VA 20380

Chief of Naval Development Crystal Plaza 5, 386 Arlington, VA 20360

Director of Navy Laboratories Crystal Plaza 5, 300 Arlington, VA 20360

Support Technology Branch Personnel & Training Crystal Plaza 6, 820 Arlington, VA 20360

Director
Personnel & Training
Research Programs
Office of Naval Research
Arlington, VA 22217

Commander
Navy Recruiting Command
Ballston Center Tower, #3, 216
Arlington, VA 22203

Dr. Bert T. King (Code 452)
Associate Director
Office of Naval Research
800 N. Quincy St.
Arlington, VA 22217

Dr. R. J. Lundegard (Code 430) Office of Naval Research 800 N. Quincy St. Arlington, VA 22217

Dr. T. C. Varley (Code 434) Office of Naval Research 800 N. Quincy St. Arlington, VA 22217

Dr. M. A. Tolcott (Code 455) Office of Naval Research 800 N. Quincy St. Arlington, VA 22217 Mr. R. J. Miller (Code 462) Office of Naval Research 800 N. Quincy St. Arlington, VA 22217

Dr. H. W. Sinaiko (Code 450) Office of Naval Research 800 N. Quincy St. Arlington, VA. 22217

Asst. Chief for Research (Code 400) Office of Naval Research 800 N. Quincy St. Arlington, VA 22217

Director of Research (Code 401) Office of Naval Research 800 N. Quincy St. Arlington, VA 22217

Director (Code 460)
Naval Applications & Anal. Div.
Office of Naval Research
800 N. Quincy St.
Arlington, VA 22217

Dr. G. L. Bryan (Code 450) Office of Naval Research 800 N. Quincy St. Arlington, VA 22217

LCDR R. D. Matulka (Code 430C)
Office of Naval Research
800 N. Quincy St.
Arlington, VA 22217

Director
Plans Department
Navy Recruiting Command
Ballston Center Tower #3, 212A
Arlington, VA 22203

Director
Recruiting Dept.
Navy Recruiting Command
Ballston Center Tower #3, 214C
Arlington, VA 22203

Director
Naval Education and Training
Ballston Center Tower #2, 923
Aolington, VA 22203

Chief of Naval Research Ballston Center Tower #1, 907 Arlington, VA 22203 Mr. M. Denicoff (Code 437) Office of Naval Research 800 N. Quincy St. Arlington, VA 22217

Dr. M. J. Farr (Code 458) Office of Naval Research 800 N. Quincy St. Arlington, VA 22217

Head Personnel Research Branch USMC Bldg. 4, Henderson Hall Arlington, VA 22214

Mr. J. R. Simpson (Code 462) Office of Naval Research 800 N. Quincy St. Arlington, VA 22217

Behavioral Sciences Department Naval Medical Research Institute National Naval Medical Center Bethesda, MD 20014

Dr. James J. Regan Code 02 NPRDC San Diego, CA 92152

AFHRL (TR/Dr. G.A. Eckstrand) Wright-Patterson Air Force Base Ohio 45433

AFHRL/MD Rm. 200, 701 Prince St. Alexandria, VA 22314

COMMANDANT
USAF School of Aerospace Medicine
Attn: Aeromedical Library (SCL-4)
Brooks AFB, TX 78235

Personnel Research Div. AFHRL Lackland AFB San Antonio, TX 78236 Dr. H. R. Northrup Wharton School of Finance & Commerce University of Pennsylvania Philadelphia, PA 19104

Prof. E. S. Krendel Dept. of Operations Research University of Pennsylvania Philadelphia, PA 19104

LTJG R. G. Vinson, USN Human Goals Officer Naval Air Station South Weymouth, MA 02190

Dr. E. A. Fleishman American Institute for Research 8555 Sixteenth St. Silver Spring, MD 20910

Mr. P. G. Bernard B-k Dynamics, Inc. 2351 Shady Grove Rd. Rockville, MD 20850

Prof. R. M. Oliver University of California Operations Research Center Berkeley, CA 94720

Dr. R. S. Hatch Decision Systems Associates, Inc. 11428 Rockville Pike Rockville, MD 20852

Dr. A. S. West Denver Research Institute University Park Denver, Colorado 80210

Mr. J. P. Thomas Hudson Institute Quaker Ridge Rd. Croton-on-Hudson, NY 10520

Mr. J. N. Kelly Mgmt. Analysis Center, Inc. 745 Concord Ave. Cambridge, Mass. 02138

Mr. W. E. Lassiter Data Solutions Corp. 5272 River Rd., Suite 100 Bethesda, MD 20016 Dr. Jack R. Borsting Dept. of Operations Research Naval Postgraduate School Monterey, CA 93940

Mr. Michael W. Brown Operations Research, Inc. 1400 Spring St. Silver Spring, Md. 20850

Dr. Marvin Dunnette Personnel Decisions, Inc. 2515 Foshay Tower Minneapolis, Minn. 55402

Mr. R. Bard Battelle Stanford Research Institute Naval Warfare Research Center Menlo Park, CA 94025

Deputy Chief Scientist Office of Naval Research Area Ofc. 207 West 24th St. New York, NY 10011

Chairman
Behavioral Science Dept.
Naval Command and Management Div.
U.S. Naval Academy
Luce Hall
Annapolis, Md. 21402

Navy Instructional Technology
Development Center
Naval Training Center
Code 7000
San Diego, CA 92133

Chief of Naval Air Training Code 017 Naval Air Station Pensacola, F1. 32508

Attn: Capt. Allen E. McMichael Chief of Naval Training Naval Air Station Pensacola, Fl. 32508 Commanding Officer
Naval Medical Neuropsychiatric Research
Unit
San Diego, CA 92152

Attn: Library (Code 2124) Superintendent Naval Postgraduate School Monterey, CA 93940

Technical Reference Library Naval Medical Esearch Institute National Naval Medical Center Bethesda, Md. 20014

Navy Personnel R&D Center Code 10 San Diego, CA 92152

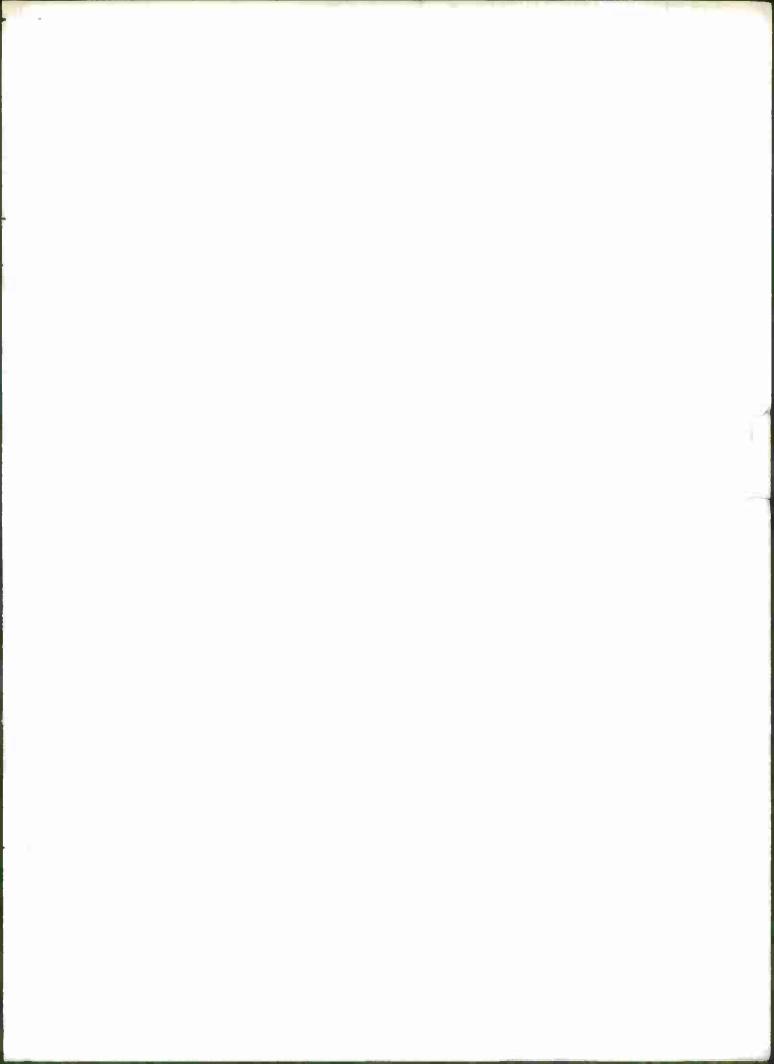
Ross R. Vickers, Jr. Code 32 Navy Personnel R&D Center San Diego, CA 92152

Mr. Bryan L. Knapp Union Carbide Corp. 270 Park Ave. 21st Floor New York, NY 10017

LTJG M.D. McCorcle, N4521 Chief, Naval Technical Training NAS Memphis (75) Millington, TN 38128

LTJG Rebecca G. Vinson, USN Human Goals Officer Naval Air Station South Weymouth, MA 02190

Attn: TDC Nelson Human Resource Management Center Attachment Naval Support Activity FPO New York, NY 09521



.

,